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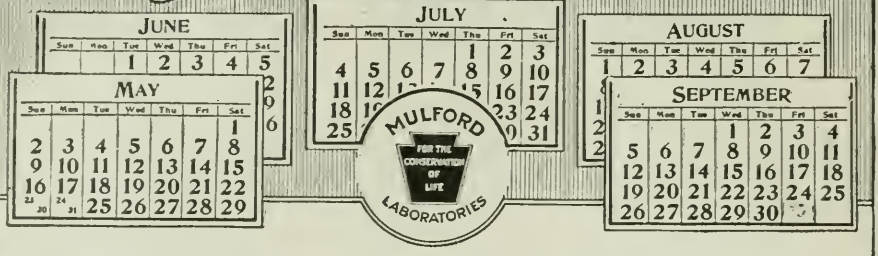

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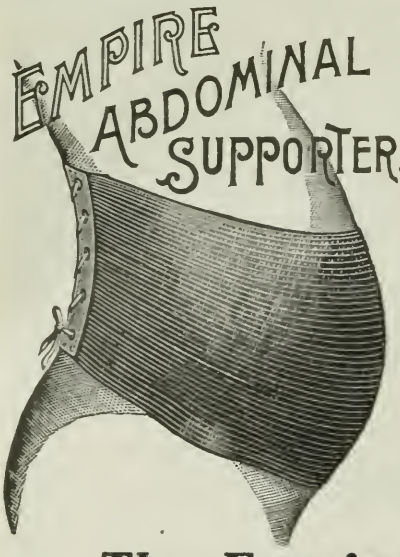

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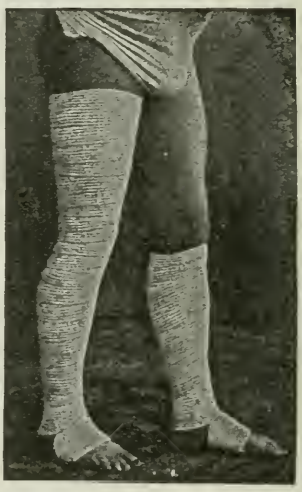

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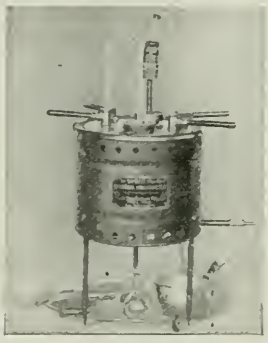

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Medical Economics

THE desire for change appears to be inherent in human nature. Even the most stolid, the most industrious and best established of us have times when there is felt an almost irresistible wish for something else; anything for a change. The subconscious idea, that a change may mean an improvement over existing conditions, is not often clearly formulated, the thought being, seemingly, that anything different must be better.

This craze for changing existing conditions and circumstances is peculiar to those who are loud in their objections to the social fabric in which they find themselves. Nor are these objectors at all a modern product. From Plato and his "Republic" to Sir Thomas More with his "Utopia" and down to the many imitators of More, numerous orators and writers have proposed schemes and systems the adoption of which would, they claimed, result in establishing the Millennium.

The desire to bring about changes that they conceive to be in the direction of "better things" is peculiar particularly to reformers who feel themselves impelled, or urged, to improve the conditions under which they and their fellowmen are living, and who are quite willing to assume the role of Moses who delivered his people from Egyptian slavery. These reformers may be perfectly honest, if mistaken, Utopian dreamers; such as Plato, for instance, and Sir Thomas More, and Flourier, and Tolstoy. Or, they may be convinced of the excellence of their schemes in their possible favorable and beneficial consequences *to themselves*. To the last class, we unhesitatingly include Lenin and Trotzsky; to it belong, likewise, those parlor socialists, uplift-enthusiasts and other dilettante "reformers" who have contributed to much to the existing unrest and dissatisfaction in all ranks and strata of society. These world improvers, who usually possess neither the prudence of serpents nor the guilelessness of doves, are prone to be somewhat indifferent to the means that they employ to gain their ends. Their aim may be merely

the gratification of personal power; it may, however, be more sordid and be directed toward the accumulation of personal possessions and benefits.

The ideas and tenets of socialism, as those of communism and similar "infallible" recipes for forcing the establishment of Utopia, are often sadly misunderstood and misinterpreted by its proponents. All too often, misguided or frankly ignorant persons declare loudly their firm convictions of the rottenness of existing conditions and their confidence that their own particular little plans would be certain to improve matters. Without entering at all into the numerous plans that have been offered during centuries, we may well pause and consider the tendency of present-day reformers to foist their views upon the public by bringing about ill-conceived but high-sounding legislative measures that promise much while they can accomplish no good but, on the contrary, great harm.

Of recent years, conditions pertaining to the physical welfare of the people have received particular attention on the part of uplifters who builded their proposals upon the very excellent measures taken for the protection of workingmen in case of accident and of illness. While the influence of the American Federation of Labor has been highly salutary in bringing about such protection and in raising the standards of living, for the working classes, in a gratifying degree, these mostly conservative efforts and accomplishments do not suit some people who pose as benefactors of the "dear workingman," who want to force upon him benefits for which he does not ask, and who readily and easily find a "goat" through whose instrumentality such benefits may be brought about.

The American Association of Labor Legislation has attempted for some years to bring about legislative enactments for the establishment of compulsory health insurance, of state medicine, of nationalization of healing agencies, including physicians, dentists, druggists and nurses. These efforts have been fostered industriously, largely under false pretenses and despite the fact that the American Federation of Labor set its face sternly against it. A year or two ago, several bills that had been introduced into the New York State Legislature were killed through the concerted efforts of the physicians, dentists and druggists of the Empire State. Similar bills are to be introduced in various state legislatares now meeting, and it was for the purpose of inaugurating cooperative opposition to them that the get-together meeting reported in this issue of CLINICAL MEDICINE (p. 255.) was held.

Though it is unavoidable and, indeed, urgently necessary that the Government assume a certain degree of health supervision, the existing agencies are fully competent to cope with all those problems that come properly within the jurisdiction of the national and the state governments. The U. S. Public Health Service, on behalf of the national government, and the state boards of health, on behalf of the various states, practice such supervision over public-health matters as is required. In addition, all sizeable cities have their own municipal health departments that attend to all those public-health problems that come legally within their sphere of influence.

When it comes to private practice, to the treatment of individual patients, men, women or children, for either medical or surgical disease, it is the opinion not only of physicians, dentists and druggists but also of the people at large that they will not tolerate and should not be subjected to any interference with their personal privileges of selecting their physicians, and the modes or methods of treatment to which they will submit. To attempt to subject private citizens to nationalization of professional attendance, is an outrageous blow against the liberties that are guaranteed to the individual citizens of the United States by the Constitution.

Furthermore, any attempt to enforce state medicine and similar tricks would necessitate such enormous outlay in money that the expense would far surpass that now actually incurred and discharged.

Worst of all, the greater part of moneys and sums collected by taxation and in other ways for this purpose would have to be disbursed for expenses of administration and for the purpose of supplying political job-seekers and henchmen with comfortable berths and soft jobs.

Altogether, the scheme that is offered to the "dear working man" is so absolutely unheard of in its arrogance and so crude and barefaced an attempt to collect huge sums of money for "politics" (in its worst interpretation) that all decent citizens

should do their best to defeat and kill any legislation tending to that end.

At the bottom of a good deal of the bravery that appears in the world there lurks a miserable cowardice. Men will face powder and steel because they can not face public opinion.—Chapin.

I DON'T CARE—I DON'T WANT TO BE BOTHERED

A few weeks ago, a "get-together" meeting of the three medical and allied societies (physicians, dentists and druggists) was held down town, for the purpose of discussing a matter that is of immediate and serious importance to all the members of the professions concerned. The joint committee had worked hard to arouse interest for the meeting, which had been announced in the weekly bulletins of the three societies. Personal invitations and requests had been sent out. What was the result?

It was a good meeting, undoubtedly. Probably about eight hundred men and women attended; but, there should have been easily three thousand and even that number would not have exhausted the possibilities. There are in Chicago alone over three thousand physicians, over two thousand dentists and, I don't know how many druggists. A truly representative meeting should have been attended by from three to five thousand physicians, dentists and druggists.

What is the reason? The trouble is that we, all of us, don't want to be bothered and, very often, don't care when it comes to anything not immediately connected with our routine work. This danger that was discussed at that meeting is a very real one. It threatens to play the very deuce with the means of gaining a livelihood for physicians, dentists and druggists. If the legislation goes through, physicians and dentists at least will be degraded into mere job-workers, under the direction of lay bosses. Their dignified social position, which is an heritage of centuries, will be ignored, their actual ability to do good work will go for nothing. All they have to do will be, to obey their boss and treat (God save the mark) the sick human machines (no longer individual human working men or women or children) in the quickest way possible and in the cheapest manner.

Why don't we care? We are not lazy. We attend to the routine work in our offices carefully enough. We pay attention to details. We are even interested in one or two other things, whether it be golf, or bowling, or bridge, or collecting postage stamps or butterflies—we do it and we like to be thorough in it. Then, why in the name of all that is common sense can't we get out of our shell and take part in something that is outside of the ordinary run of duties!

On my desk, there is a letter written by the executive secretary of the Illinois Social Hygiene League. Mr. Roloff (that is the secretary) asks, Does anybody care? He says that the Illinois Social Hygiene League, at 118 W. Grand Ave., is treating persons afflicted with venereal disease, is teaching them how to prevent communicating it to others, is trying its level best to keep the awful plague of syphilis from spreading like measles. They are not in unfair competition with general practitioners. All those patients who can afford it must pay for services; those unable to pay wouldn't do the general practitioner any good. Yet, the league takes care of them. They treat as many as a hundred and more patients in one evening and often they even have to donate the medicine.

Despite the fact that this work is of great and undoubted importance, despite its being indubitably true that venereal disease often is communicated to innocent women and children and that an enormous amount of injury is done to the innocent thereby, this league hardly can keep is doors open because the treasury is empty.

Mr. Roloff asks for help. Some of it should be forthcoming. The work is worth it.

As for ourselves—we must learn to fill our places, not only in the sickroom, in the hospital, in the office but, no less, in the community, as active citizens of the Commonwealth. We simply *must* interest ourselves in matters outside of our direct duties and must exert that influence, in the direction of law and order, that is ours by right of our position and profession.

PSEUDOMUMPS, OR WHAT?

During the last few months, many of us have observed cases starting in like mumps, the swelling involving more particularly the submaxillary glands, sometimes the sub-

lingual glands, but not affecting the parotid glands at all.

There is malaise, moderate fever temperature (101° F.), possibly nausea and vomiting, headache. The pain may or may not radiate to the ear; there may or may not be pharyngeal irritation. Altogether, the symptoms are just those of "oncoming" mumps. The symptoms persist usually for two or three days, but occasionally last for about a week. Then, they subside.

In one instance that has come to our personal knowledge, such an attack was followed by polyarthritis and very severe complications on the part of the heart, the hypostatic portions of the lungs, the liver, intestines, in short, the whole organism. In all other instances, the trouble disappeared without leaving a trace.

We should like to know whether other physicians, especially in other regions of the country, have observed similar things.

We do not like our friends the worse because they sometimes give us an opportunity to rail at them heartily. Their faults reconcile us to their virtues. —Hazlitt.

MEDICAL EDUCATION AND BETTER DOCTORS

A recent issue of *School Life* reproduces a story contributed by an anonymous writer in the *New Republic,* suggesting that higher education should be financed by requiring students to pay fees on the basis of the grades they receive.

The writer describes a school that was in dire financial distress. Everyone was discouraged and despondent. The faculty met from time to time and engaged in the "usual academic discussion." But, academic discussion does not supply funds to buy coal or to pay the butcher and the grocer. The president held out the hope of better days but, no one could see them. A business expert was employed to study and report upon the problem. He discovered that there are two classes of students, those who go to college for an education and those who are in college because it is a fashionable and respectable place to be. He recommended that all students having a grade of 90 or better should be exempt from fees; those having grades between 80 and 90 should pay a fee of, say, $200 a year; between 70 and 80, $500 a year, and so on down until those who received grades of 20 or below should pay a $20,000 fee. Out of 3,000, he discovered that 180 students would have no fees to pay.

One of the mythical fathers, in sending his $20,000 check, is reported to have written, "It comes high but I believe it is worth it to be rid of the boy for the year." Something like $15,000,000 in fees was collected in one year from the 3,000 students. A veritable college Utopia was created.

Now, of course, all this is not feasible in its practical application. Still, the principle is a good one. The suggestion is sound, that the faculties of medical schools should make it easy financially for good students to get through, while they should make it very difficult for the poor students to get their degrees. True, there are some hard-working men who are not naturally bright students but who still would make good and faithful practitioners of medicine. There are many men of the plodding kind who require months and months of hard continued boning and studying before certain facts are engraved in their memories. However, once that aim has been accomplished, the "forgettery" of these men is mighty poor. Their memory is most tenacious. They are able to build upon the foundation established with hard work and to develop into excellent, solid and efficient students, even though they never may be brilliant or scintillating.

Fortunately, a medical practitioner is not required to be a brilliant wit. He needs thorough training and this can be acquired only by hard work.

The point that we want to make is, that those students who manifestly benefit from the instruction offered them and who can reasonably be expected to make good physicians should be pushed and encouraged in every possible way to complete their medical education. On the other hand, those students who are too lazy or too careless or too stupid to acquire the necessary information should be conditioned so severely that their elimination from the student body follows as a matter of course. Careless scatterbrains have no business in the medical profession. There is too much at stake and patients' lives are too easily sacrificed. Nor is the medical profession a good harbor for lazy or for stupid people. The lazy might be set to breaking rocks and the stupid should be investigated, by psychoanalysis or otherwise, until their proper level of intelligence is determined. After this, it

should be easy to outline a plan of work for them for which they are fitted mentally and physically.

That which is good to be done, can not be done too soon; and if it is neglected to be done early, it will frequently happen that it will not be done at all. —Bishop Mant.

RENEWAL SUBSCRIPTIONS

A few months ago, we received the following letter from a physician who had been a subscriber of CLINICAL MEDICINE for years.

"Delay in sending my check, in payment of subscription up to December 31, 1920, was simply neglect. Not intentional. I have taken your magazine since I began the practice of medicine, and like it very much. I have all my subscriptions begin January 1 of each year, hence the payment of my subscription to December 31, 1920.

Now I expect to subscribe and pay my subscription in advance in January. What is your rate for five years' and for ten years' subscription? If I find it sufficiently interesting, I will subscribe for one of these periods, paying in advance. That will avoid delay in making payments of yearly subscriptions.

I do not feel that I care to be without your journal, hence the request for price on longer subscriptions.

This illustrates the reason for a good many failures of renewed subscriptions for CLINICAL MEDICINE.

Our correspondent has the right idea. Paying for a subscription for five years in advance, secures him against the bother of having to reorder year by year and also protects him from the loss of separate issues that may have failed to arrive because the subscription had lapsed.

CLINICAL MEDICINE stands for everything that is of service, of assistance and of benefit to the medical profession. Its editors do their level best to serve their colleagues who have subscribed for the journal. They fight the doctors' battle as far as they can. They write insistently against abuses within the medical profession and against attempts to injure it from outside. Witness, for instance, our insistence on physicians adopting reasonable business methods for their own financial good, on the one hand, and, on the other, our continued and decided opposition to compulsory health insurance and other injurious pseudouplift legislation, but which is worse than socialism.

There isn't a single transaction between humans that is not based upon the principle of give and take. There is not anything that one person does for another that does not require some sort of reciprocity. In a way, the editors of CLINICAL MEDICINE are happy to receive constantly many commendatory letters expressing the appreciation of its subscribers of the help afforded in the pages of the journal. That is very fine and we like it. However, it does not pay the printer nor does it buy postage stamps. While we like you to tell us what you think of CLINICAL MEDICINE, inform us if you like it, and let us know (gently, if you please) if you have any criticism to offer—we also are in need of monetary reciprocity in consideration of which CLINICAL MEDICINE is sent to its subscribers month by month and year by year.

CLINICAL MEDICINE possesses no endowment nor is it subsidized by anybody. It pays its own way and part of the sinews of war must come from the subscription returns.

Now then, if you have forgotten or neglected to pay up, won't you please send us a check. You have had our service; now, reciprocate. Two years for five dollars if you say so.

ANTISEMITISM

We offer no apology for opening our columns to a discussion of the Jewish problem. When a body of people is signaled out for drastic treatment and, that, for no known or self-evident cause, it seems desirable to determine our position in the matter as individuals. Our thought is, to fortify our readers for prevention now rather than remedial action later when cure is impossible.

There seems to exist a democracy of interest binding scientific people together without reference to language, nation, religion or politics. Many sacrifice their material interest in advancing the cause dear to their hearts solely for the good of the public—purely altruistic work.

Now, when the venom of antisemitism spreads its deadly work to men of science, simply because they are Jews, we feel urged to go on record against its entrance in schools and societies of medicine in the United States.

Recalling our editorial in the February issue (p. 75), we just mention the patent falsity of the scientific (!) persecution of

Einstein by the German antisemitic agitation. The work of Professor Einstein as a scientist is probably marked for recognition as among the most important accomplishments of the century.

To refer more particularly to sciences, and still more so to medicine, most of the great medical authorities teaching at Berlin University for more than half a century have been Jews, as have also been many of the leaders in other intellectual pursuits.

This is but an inheritance that the Jews have possessed for many centuries. You recall that, during the middle ages, when the Arabs were the only ones to foster science and research (when the church had set its face against the investigation of natural forces) and before Mohammedanism had become so aggressively narrow as to exclude everything that was not mentioned in the Koran, during that time the Arabs were sufficiently enlightened to give their support to the Jews who not only were prominent in astronomy and other natural sciences but also were the most notable physicians of the day (with the exception of a few Arabic physicians such as Razes and some others).

A pause in the day's work is worth while to pay tribute to the many of this race who have exceeded the attainments of the Gentile in matters of science, belles lettres, art and religion. There is too much constructive work to be done in the realm of medicine and allied sciences to waste time, effort and thought, as Germany and Russia are now doing, to scatter the very people who should be encouraged to develop their native capacity to the full.

Despite the fact that we are "enlightened" and that some of our very best men in the medical profession are Jews, both abroad and in this country, we sometimes hear them sneered at and mentioned disparagingly because they are Jews. It seems as though the race, since the Fall of Jerusalem A. D. 70, never could live down the reproach of having crucified the Prophet of Nazareth, or, at least of having been instrumental in His crucifixion.

There is also the psychological factor. The Jew, no matter whether he be business man, trader, or a scientist, is aggressive. He is a hard worker and a close, persistent careful investigator. If his efforts are in trade, he makes money. If they are directed along scientific line, he makes discoveries and, incidentally, money. But, he always insists on doing things. Thinking of the late Theodore Sachs, of Isaac Abt, Emil Beck and many others who are prominent in the Chicago medical profession, for instance, their very prominence causes jealousy.

From Egypt on to Babylon, Greece, Rome, Spain and Germany, the Jew has ever been the anvil to receive such hammer blows as may have been his fate. But, the lesson for us is, the broken hammer while the anvil remains.

We warn against the causeless sneer. We emphasize learning the true lessons of the past. We urge a continuance of that democracy of scientific men which, in this country at least, has enriched our friendships and increased our achievements as a people. Let us absorb from the Jew what he has to offer and, on an equal footing, give him equal opportunity to develop his maximum good.

This is a personal matter before it affects society creating public opinion. Germany's treatment of the Einstein matter will not—can not react to her good.

Physical bravery is an animal instinct; moral bravery is a much higher and truer courage.
—Wendell Phillips.

THE DOCTORS OF TOMORROW

In a very pleasant and kindly letter, one of our subscribers, no longer a young man, tells us some nice things about CLINICAL MEDICINE, and then proceeds to criticise—in just as kindly a manner—some of the things that we have said about the necessity of maintaining high educational requirements for those who are to enter medical schools and become the doctors of tomorrow. Our correspondent pleads for those who are less fortunately situated and expresses his sympathy for those who, like one of our correspondents in Tennessee, are in serious straits.

While we can fully understand and even share the sympathy felt for that "poor old Tennessee doctor," and while we admit that the lot of many of our noblest and (in actual good work) our very best physicians is cruelly hard; while, further, we are willing to grant that the difficulties in the way of securing a medical education at this date are so great as to exclude many splendid young men from the ranks of our profession—still, we are constrained to point out

that all this means a chain of circumstances and conditions that have developed in the course of years, not through any individual or personal wish but through the inexorable and irresistible general urge for progress, for improvement; the constant insatiable striving for perfection; the ever-present desire for "something better."

If, almost twenty years ago, the American Medical Association, after its reorganization, set its face sternly against those small medical colleges whose teaching facilities, laboratory outfit and other provisions for imparting required information to their students were insufficient; if, in consequence, numerous small medical colleges went to the wall; if, furthermore, the study of medicine in accordance with more modern conditions and requirements became increasingly difficult—the personalities of those men who were active in promoting the progress counted for little. They stood for an idea and they tried to attain and to realize certain ideals that they saw in their mind's eyes through the attainment of which the graduates of the improved medical schools should become more and more capable of coping with the many problems of disease.

True, the human factor in the practice of medicine was often lost sight of. It was forgotten in the halls of the great and in the seats of the learned that sick people are not things or machines out of whack, that they are human beings in need fully as much of sympathy, of kindly counsel, as of learned therapeutics.

That is where theory so often falls down and where practice may teach an entirely different lesson. Still, it is hardly in the lecture hall of the medical school, certainly not in the dissecting room or in the laboratory, that the student learns sympathy or the human touch or the importance of the personal equation as a decisive factor to bring about success or failure. That may commence in the dispensary and in the dispensary practice. It is developed more fully when the young graduate is turned loose "on his own" and starts to be consulted, as the physician, by the sick of his neighborhood.

With all this, it can not be denied that human endeavor and human accomplishment, investigation, research and discovery progress persistently without rest; new facts are found out, new truths discovered, new rules of treatment must in consequence be outlined.

In order to treat the sick human organism in accordance with modern conceptions, it is necessary to possess a knowledge of normal and of pathological physiology. Furthermore, it is needful to be familiar with the action of remedial agents (whatever may be their nature) upon the normal and upon the diseased organism. That particular phase of the practitioner's life and activities that deals with the "human touch," with the personal equation, can not be taught in school unless it be by precept, through the manner which the professor deals with the patients whom he demonstrates to his classes. We remember having seen some professors deal with patients as a Prussian sergeant would handle his most stupid recruits. On the other hand, we have watched so great a man as Sir Almroth Wright question his dispensary sick, and in every case their faces would light up with a deep and grateful affection for the kindly big Irishman who inquired so solicitously as to their improvement. The personal factor is not lost in the medical curriculum or through the medical teaching of today. It is of as great importance today as it ever was. It will decide now, as it did in the past, the success or failure of a practitioner of medicine as a true physician.

With all this, we must grant and admit that a complete and thorough education of the candidate for medical honors should be demonstrated before license to practice is given. The mere fact that so many irregulars take it upon themselves and pretend to heal the sick, the circumstance that Chiros and other healers offer to cure diseases that erudite physicians feel impotent to cope with; in short, the sad existence of much that is rotten in the medical and paramedical domain of today does not or would not excuse any retrogression on the part of the medical profession in the demands made upon those who knock at its portals for admission. It is our solemn duty to see to it that the physicians of tomorrow be as fully equipped for their responsible work as it is possible for us to make them. Whether they will be successful practitioners, whether they will become real physicians, in the course of years of practice, will rest with them. It has always been thus, a "really truly" physician never

yet came fully fledged out of the classroom or the hospital; he always has become such a one through much weary work and study and labor and sad experience.

We do not know that we can make our meaning clear. Personally, we deprecate the implied requests or, often, demands, on the part of many physicians, that the bars be let down; that less than the best should be permitted to pass; that medical education should be subjected to less rigid requirements. Personally, we can not bring ourselves to agree with such views. We hold that we are bound to do the best we can; that we are obliged to keep on studying and investigating and searching for more and more of the truth, to discover as much as it may be given us to find.

Do not believe that a book is good, if in reading it thou dost not become more contented with thy existence, if it does not rouse up in thee most generous feelings.

—Lavater.

THE ESTATE THAT PHYSICIANS LEAVE BEHIND THEM

A few days ago, the widow of one of our friends of many years, informed us of his passing on. His case presents but another instance of the constantly observed fact that the estates which physicians leave behind them not only are very often quite inadequate to maintain their widows in reasonable comfort but are small quite out of proportion to the work accomplished by the physicians in their lifetimes and to the uncollected accounts on their books.

Here, as in so many cases, the executrix of the estate finds it quite impossible to have outstanding debts paid up, the former patients of the good doctor simply refusing or making idle excuses.

Small wonder that we hear of ingratitude spoken of on the part of those the doctor served with his best efforts, giving his time and ability, and having accounts unsettled going back to ten, twenty and even forty years. To be sure, it is almost incredible that any physician should keep accounts running for those unduly long periods of time. Fortunately, physicians are slowly awakening to the necessity of applying business methods to the business side of their vocation; they are realizing that they can not do their best by their patients if they do not collect sufficient funds to maintain themselves and their families suitably and to accumulate a proper estate. The physician who is fretted by money cares is incapable of giving really good and efficient service. He is foolish if he permits his debtors to put him off; providing, of course, that they are able to pay their just debts.

On the other hand, patients who have requested and received the doctor's services, in all kinds of sickness, for themselves and the members of their families, and who refuse to liquidate their debts to him, even though he personally may no longer be able to benefit, having passed on, deserve the condemnation of all right-thinking persons. It is a dastardly thing to cheat a widow. It is worse still to refuse to pay a bill incurred for physician's services when the physician himself has died and when his widow is in serious straits to make a living.

Let physicians wake up and indulge their foolish sentimentality less, let them realize that this luxury can be enjoyed only to the detriment of their own families, that they rob their own wives and children by coddling the deadbeats among their patients. Business methods applied to the practice of medicine are not unprofessional, they are not undignified. Quite the reverse. It is undignified, it is antisocial, it is a crime to pauperize patients by indulging them financially when they are able to pay their bills.

"CAMP ROOSEVELT"

Civic pride is of that substance from out of which great achievements are molded that result in honor and glory to a community. The Chicago community introduced to the United States of America, at a critical time in its history, the important factor of military training for boys in its public highschools. Most of the large cities have since that time followed this example. The success with which this undertaking was met has afforded us a great deal of pride, and rightly so.

The military training course in the highschools has developed into a system of physical-military training which enables each boy to secure ten months of corrective and instructive work in physical upbuilding. The training is given in sufficient amount to enable the handling of boys in large masses with the greatest amount of conveniences. It instils in each boy a true and correct

conception of law and order. It must not be thought that the attempt is to make finished military men out of them, however. What is endeavored is, to develop them physicially, mentally and morally.

With this in mind, the pioneer of this movement in the Chicago public high-schools, Captain F. L. Beals, USA., arranged with the Board of Education to establish a summer training camp for boys where each day would be filled with health-building activities. Accordingly, on a beautiful tract of land on the shores of Lake Michigan, five miles south of Muskegon, Michigan, such a camp was established during the summer of 1919. The camp was named in honor of that great statesman and soldier, Theodore Roosevelt, and the high ideals for which he stood in his lifetime are the fundamental principles underlying this great movement. The summer of 1920 heralded the second anniversary of Camp Roosevelt.

The plan was heartily endorsed by the U. S. War Department, which lent cordial support to the project in the way or equipment, such as tents, cots, mattresses, and other things. During the last season, a committee of army officers was ordered to the camp to inspect the work. It is interesting to note that, as a result of their investigaion, U. S. War Department has adopted the Camp Roosevelt Plan as a national policy and is endeavoring to establish three or four more camps similar to Camp Roosevelt.

Captain F. L. Beals, USA, Commandant of the Camp, has dedicated his life to boy-building. Captain Beals' stock in trade is, boys. His life interest is, boys; and his ultimate aim is, so to mold the growing boy of today that he will develop into the very finest specimen of clean, wholesome American citizen. As an officer of the United States Army, he grasped the greatness of the health-building work that had been accomplished at the training camps throughout the country during the world war. He sought long for ways and means by which to inculcate it into his work, so that the maximum amount of good could be wrought for the adolescent boy. The culmination of many months of strenuous, concentrated thought and labor is this tremendous camp for boys from all parts of the country.

The camp is a splendid force in Americanization, and in building up a democratic spirit among the boys. This is a vital factor —one of prime importance in the business of boy-building . Parents of growing boys should interest themselves in this project, and support to the fullest extent the Camp Roosevelt Plan.

At this time, plans are being made for the children's summer outing. Your boys, both your own, Doctor, and your boy patients. will be well taken care of and will learn many valuable lessons at the various Camps Roosevelt.

There is no such thing as chance; and what seems to us merest accident springs from the deepest source of destiny.—Schiller.

SOME DATA ON ELECTRO-THERAPEUTIC WORK

We were asked the other day how many doctors were using electrotherapeutic apparatus. All we could say was, that we thought the number was increasing rapidly, particularly since the war. While this is true, as every one connected with electrotherapeutics knows, still we were reminded of the fact that our supply of definite statistics on this subject was woefully lacking. So we set out to gather some data which could be used in the present "electrotherapeutic" number. While we have only made a start in this direction, the facts, already secured and tabulated below, are somewhat interesting. In the first place, we wrote to five thousand doctors scattered in every state in the Union, some in cities, others in smaller towns. We sent these doctors a questionnaire. Among the questions were these:

1.—Do you use electrotherapeutic apparatus?

2.—If so, what make?

3.—Are you contemplating the purchase of an electrotherapeutic apparatus?

Over one thousand replies were received to this questionnaire. We believe that these are fairly representative of the entire subscription list of CLINICAL MEDICINE. To the first question—"Do you use electrotherapeutic apparatus"—

340 doctors replied "Yes."

668 doctors replied "No."

This result was somewhat surprising to us. It shows that virtually one-third of the doctors are using electrotherapeutic apparatus of some kind.

An even more interesting feature was, that a large number of doctors are now

contemplating the use of electrotherapeutic apparatus of some kind. For instance, 175 doctors out of 668 replied "Yes" to question number three, indicating that they were thinking of buying electrical apparatus or are now in the market for it. This means that, about $5,000,000 will be spent for electrotherapeutic apparatus this year, averaging the sales at $300.00 for each physician; which is very conservative.

As to question number two, asking for the type and make of the apparatus now being used, the following synopsis may be of interest:

54 doctors mentioned Fischer apparatus.
42 doctors mentioned Betz apparatus.
41 doctors mentioned McIntosh apparatus.
38 doctors mentioned Thompson-Plaster apparatus.
37 doctors mentioned Campbell apparatus.
25 doctors mentioned Wappler apparatus.
16 doctors mentioned Vulcan Coils apparatus.
15 doctors mentioned Aloe apparatus.
15 doctors mentioned Wm. Meyer apparatus.
8 doctors mentioned Schiedel Western apparatus.
7 doctors mentioned Snooks apparatus.
5 doctors mentioned Edwards apparatus.
5 doctors mentioned Kelly Koett apparatus.
5 doctors mentioned Rogers apparatus.
4 doctors mentioned Waite & Bartlett apparatus.

In addition to those referred to, there were other mentions of Max-Wocher, Kny-Scherer, Van-Houten, and Ben Broeck, Standard, Rose Coil, Hanovia, Western Coil, Coolidge Portable X-Ray, Roemer Lamp, Ultima Physical Appliance Co., Bleadon-Dun, Burdick Radio-Vitant Lamp, Sanitarium Equipment Company, and Birtman apparatus.

Many doctors mentioned the fact that they were using electrical diagnostic instruments from the American Surgical Specialty Company, Rochester Surgical Appliance Company, C. B. Myrowitz, etc. Some, also, mentioned Shelton Vibratory apparatus, and many simply referred to wall plates, static machines, cauteries, and smaller apparatus.

What does this investigation show? First, that there is an increasing interest in electrical apparatus for diagnostic and therapeutic purposes. Second, that further investigation is desirable and that statistics of this kind are of value. Third, that more education along electrotherapeutic lines is necessary. This has been a somewhat neglected field in medical journalism, and publishers are waking up to this fact as evidenced by this electrotherapeutic number of CLINICAL MEDICINE. Fourth, that the percentages of towns without electrical current is very small and is being reduced every year.

Contributions and clinical experiences along this line are requested and comments on this initial statistical work are invited.

CHLORAZENE AS A PREVENTIVE

The 50th report of the Medical Research Council (London) offers data bearing on attempts made to check the transmission of meningitis by disinfecting carriers according to the inhalation method, the subjects being confined to a room previously sprayed with germicides. Both, zinc sulphate and chloramine were tried. The capacity of the room was about 750 cubic feet; within this space, one liter of 2-percent chloramine (chlorazene) was sprayed in the course of twenty minutes. The tests were made on thirteen chronic carriers once a day. All were instructed to inhale vigorously for fifteen minutes through the nostrils.

The result was, that ten of the carriers became free of the meningococcus in from six to ten days. Under zinc-sulphate treatment, the outcome was not so good.

Another trial was made in a military camp near London, in which a fulminating case of cerebrospinal fever appeared, and 48 contacts gave a carrier rate of 10 percent; four days later, the rate ran up to 31 percent. All of the men in camp were then put through the inhaling-room. A 2-percent solution of chlorazene was used, each man remaining in the room fifteen minutes. After three days, swabs showed no organisms and no new cases appeared.

From such trials, it was concluded that this method of dealing with mass-infection has merit and is worthy of further trial. Besides a direct disinfecting effect, it is likely that it increases the lymph circulation of the nasopharynx, a natural process of defense. To get results, however, care must be taken to keep the room atmosphere fully charged with the spray and to see that the subjects under treatment inhale vigorously through the nose, thereby reaching the mucosa of the posterior throat and nares.

Leading Articles

The Treatment of Carcinoma of the Uterus by Radiation

By HENRY SCHMITZ, A. M., M. D., F. A. C. S., Chicago, Illinois

WE commonly classify cancer cases, for purposes of treatment, into several groups: operable, borderline, inoperable, terminal or hopeless, and recurrent cases. We thus indicate at once the method of treatment to be applied in the first group.

An operable carcinoma of the uterus is one in which the primary growth is clearly confined within the boundaries of the organ. A surgical removal of the generative organs will effectually eradicate all carcinoma cells from the body of the bearer. A permanent cure is the rule.

A borderline case is one in which the primary growth is advancing into the contiguous organs or tissues. An extended radical abdominal panhysterectomy will not always result in a complete removal of all cancer elements. A recurrence is probable. A permanent cure by surgical methods is impossible in the majority of cases.

Clearly inoperable cases may be divided into two groups: The one shows invasion of the bladder, rectum, parametrium or regional lymphnodes—either of one, several or all of these structures; yet the uterus and adnexa are not fixed to the bony pelvis. They offer an ideal field for raytherapy. The other is characterized by an invasion of all of the pelvic structures which are firmly fixed to the bony girdle. The iliac and lumbar lymphnodes are mostly involved and metastases have probably formed in distant organs. They are absolutely hopeless from the standpoint of treatment.

The recurrent cases are those in which the cancer recurred after a surgical excision. Should the recurrence be located in the vaginal fornix, they yield readily to treatment. Should the growth recur in the regional lymph nodes or the distant portions of the parametrium, they are hopeless.

Classification of Cases

Accordingly, the grouping is as follows:

1. Cases clearly operable after a physical examination.
2. Cases doubtfully operable—"Borderline cases."
3. Cases in which a radical operation is absolutely impossible.
4. Cases so far advanced that all treatment is hopeless and that are subjected to it for purposes of palliation.
5. Cases that recur after an abdominal panhysterectomy.
   (a) Locally in the scar-tissue.
   (b) Regional and metastatic.

It is obvious that we must adhere to a definite classification, as given, so as to enable us to recognize the curative or palliative effects of therapeutic measures, to tabulate the prognostic value of the various modes of treatment and thus to standardize and evolve a correct form of treatment. Statistics may then be collected from all clinics working under these rules, that would prove to be of inestimable value for the furtherance and progress of cancer treatment.

Operable Cases

Clearly operable cases indicate a radical, extended abdominal panhysterectomy. Should contraindications to operation exist, they are subjected to radium treatment. As soon as we have collected a sufficiently large number of clearly localized carcinomas of the uterus treated exclusively with radium and which have remained well and free of any recurrence for five years

or more, we may decide which mode of treatment gives the best total curative results.

Many therapists have proposed a prophylactic raying following operations in order to prevent recurrences; others recommend preoperative raying to cause, first, degeneration and death of the tumor elements and thus prevent accidental dissemination of viable carcinoma cells during the progress of the operation. It is claimed that by either method the efficacy of surgical procedures would be improved. The value of such combined treatment can be determined only by a proper subgrouping and a careful collection of these cases. The advantages of such procedures would soon be established beyond any doubt.

Borderline Cases

The results of surgical treatment of borderline cases have been so disastrous that most surgeons refuse to treat them. This class of patients, however, forms the most ideal group for radium therapy. When we began the investigation of the value of radium therapy, we were quite undecided whether a patient should or should not be subjected to a radical excision of the pelvic organs after a complete local regression of the tumor was obtained by ray therapy. Also, we did not know whether an excochleation and cauterization of the tumor mass, preceding the course of radium treatment, would or would not improve the prognosis. Therefore, we had to subgroup these cases, stating (a) whether they were treated with radium only; (b) whether a local healing was obtained with radium and an excision followed, and (c) whether an excochleation and cauterization preceded the radium treatment.

Inoperable Cases

The clearly inoperable cases of Group 3 form the largest number of cases. Here also the same conditions prevail as in cases of Group 2. Therefore, a similar subgrouping was adopted; namely: cases treated with (a) radiation and panhysterectomy, (b) extensive cauterization and radiation, and (c) radiation only.

The hopeless and recurrent cases require an entirely different form of treatment, as will be stated later.

Purpose of Radiation

The object of any successful treatment of cancer of the uterus is, to destroy or remove all, absolutely all, cancerous tissue and cells. Hence, the object of the application of radium and roentgenrays is, to apply an amount of homogeneous radiation for a sufficiently long time to destroy the deeply located pathologic processes within the pelvis without permanent injury to healthy tissues and organs. As my article is a purely clinical one, I do not deem it necessary to go into the chemistry and physics of the various radiations, nor to explain the technic that must be used to obtain various qualities and quantities of rays for the multiple purposes of therapy, nor to demonstrate the various methods of measuring rays, nor state the lethal dosages of radiation to be applied in a given case to successfully eradicate a pathological condition.

Effects of Radiation

A properly selected radiation applied to a correctly selected case of carcinoma of the uterus, that is to say, one belonging to Groups 1, 2 and 3, will cause, within three to four weeks after treatment, a visible and palpable decrease of the cancer area. The cervix shows local healing, the uterus is palpable and movable, the parametrial tissues are softer in consistency, reduced in size and again movable and very often rendered free of any induration.

Properly selected cases reveal a visible and palpable subsidence of the cancer growth after a correctly applied radium course. A panhysterectomy could be easily performed. The operation would not present unsurpassable technical difficulties. Could the dangers of an added operation hold out to the patient a more favorable prognosis? Out of a total of 208 uterine cancers treated with radium and x-rays, 22 cases were assigned to Group 2 and 82 cases to Group 3. Of Group 2, 13 were subjected to an abdominal panhysterectomy after a recession of the diseased tissues to an apparently normal state, after radium treatment. Of these, 5 are living and 5 have succumbed either to the operation or to a recurrence; 3 did not report. Of Group 2, 9 were treated with rays only. Seven are alive and well; 2 have died. Sixteen cases of Group 3 were subjected to panhysterectomy after an apparently local healing. Two of these are living, while 14 have succumbed or did not report. Twenty-five cases were subjected to an excochleation, cauterization and radium treatment. Four

cases are living, 18 died and 11 did not report. Forty-one cases were treated with radium only. Eighteen of these are well and free of recurrence, while 11 died and 12 did not report.

Radium Gives Better Results Than Operation

Thus, it is evident that patients of Groups 2 and 3 treated with radium only and not subjected to panhysterectomy, excochleation or cauterization have a better chance all around. If local healing is obtained, we should not subject the patient to an unnecessary operation. Preliminary excochleation and cauterization, also, do not offer the patient any additional benefits. They render her chances less favarable in spite of the added physical and material sacrifices.

Recurrences and Their Treatment

Recurrences after a local healing of the carcinoma with radium appear within six to nine months, rarely later, following the termination of the treatment. It is a noteworthy fact that such recurrences are very refractory to radiations, probably due to the heavy connective-tissue reparative process. Exceptionally, an arrest and recession of the recurrence may take place following another course of radiation. If the growth does not react to the treatment and if the recurrence is confined to the uterus, we advise surgical eradication. Should the recurrence appear in the regional lymphnodes, we have subjected the patients to laparotomy; burrowed canals into the tumor masses in which we placed rubber tubing. The tubes are secured with silk stitches to the parietal peritoneum of the posterior abdominal wall and also to stab-incisions in the anterior abdominal wall. The length of the tubes must be carefully determined. The radium applicators are secured to a heavy silver wire which easily adapts itself to the course of the tubing. Two to four applications of 50 milligrams radium element, of ten hours each and at intervals of twelve to thirty-six hours between applications, are given.

We have subjected five patients to the procedure without any apparent benefit. Two patients succumbed to peritonitis. Three had a tedious convalescence. Of the latter, one succumbed six weeks later. She had a large metastasis in the liver. Another expired six months later from a carcinomatosis. The third one reported that she was not relieved, and has not been heard from since. In spite of these discouraging results, we shall continue the treatment in specially selected cases of such recurrences.

Those "Hopeless" Cases

Cases of Group 4 have been benefited only exceptionally by the radical treatment indicated in cases of Groups 1, 2 and 3. The fact, that the dangers from toxemia due to the absorption of split products and infection are very great, has induced us to desist from the plan. We usually apply 50 milligrams element for twenty hours placed against the crater. This will cause an arrest of hemorrhage and a subsidence of the putrid discharge. As soon as the symptoms of absorption or infection or both subside, that is, in about ten days, we make a second application of 50 milligrams element, for twenty hours, within the cervical canal. Should reaction or infection not appear within three days and if the examination of the blood does not reveal a leukopenia, a full course as outlined for cases in Groups 1, 2 and 3 is resorted to.

Limitations of Ray-Treatment

We must also consider the clinical limitations or contraindications for radium applications. They are given by the systemic reaction of the organism and the possibility of infection.

Mild subjective disturbances, such as nausea or vesical and rectal tenesmus, do not necessitate an interruption of the treatment. Serious disturbances due to the absorption of cell constituents liberated by the degenerative and destructive action of the radium rays are, intense weakness, apathy, anorexia, absolute refusal of all food, serious changes in the blood elements, especially leukopenia, and, finally, radium cachexia. They compel an interruption of the treatment.

Infections result from the bacteria ever present in cancer tissues. The bacteria enter the pelvic organs and tissues through the injured mucosa of the vagina, uterus, rectum or bladder. The injuries result from necrosis or destruction by the action of the rays. Toxic substances accumulating in the bowel tract, the result of the toxemia, are also readily absorbed through an injured rectal mucosa. Bacterial invasion causes inflammatory changes in the paracervical, paravaginal and pararectal connective tissue, the uterine adnexa, the pelvic peri-

toneum, terminating in diffuse septic peritonitis or sepsis.

This danger can be avoided only by a correct dosage that gradually degenerates the tissues and avoids necrosis of the surface epithelium, especially of the rectum. A most careful asepsis observed in the application of the rays, insuring free drainage from the uterine cavity, and careful dilatation of the cervical canal to avoid all unnecessary trauma, must be insisted on.

Need of Careful Study

The possibilities and limitations of radium therapy must be proven by microscopic examinations of all the pelvic organs and structures removed post mortem in patients who have succumbed following a course of radium treatment. By such careful and minutest microscopic examinations, we can demonstrate the actual penetrability and curative efficacy of the rays in the tissues adjacent to the bony pelvis. The absence or absolute degeneration of all carcinoma cells in all the pelvic tissues, and the presence of a connective tissue regeneration or cicatricial formation or necrotic areas, are the criteria for the interpretation of a successful and efficient radium treatment. The presence of viable carcinoma cells, especially evidences of mitotic activity, undoubtedly would mean either that the treatment was deficient, or, if correct, that radium cannot be considered as a curative agent.

The reaction of carcinoma cells to radium rays varies depending on the histological structure of the neoplasm. The squamous-cell carcinoma of the cervix, characterized by hornification or epithelial pearl formation usually evidences a papillary arrangement of the cells; that is, cone formation with epithelial pearls, edematous, loose, connective tissue and round-cell infiltration consisting of plasma cells, eosinophiles, mast-cells, leukocytes and lymphocytes. This epitheloid carcinoma, or acanthoma, is usually found in the cauliflower-like tumor, which is an everting, rapidly proliferating cancer without simultaneous extension into the tissues.

The changes caused by radium in the cells of the hornifying epithelioma are, cytolysis and karyorrhexis, as vacuolation and granulation of protoplasm, destruction of the cell wall, destruction of the nucleus into amorphous débris, and so forth, round-cell infiltration and, later on, fibroblastic formation. The round-cell infiltration is especially rich in eosinophiles, while connective tissue formation is really of secondary importance, the tumor disappearing by the action of phagocytes and necrophytes.

The basal-celled epithelioma of the cervix is mostly found in the infiltrating variety of cervical carcinoma. The rays cause a necrosis in the central portion of the cones or alveoli, characterized by the formation of amorphous masses and cell detritus, while the peripheral cells remain unchanged for a long time. As the treatment is continued, all the cells become finally similarly destroyed and removed by phagocytes. The vacancies in the tissues are rapidly filled by fibroblasts. Necrosis and connective tissue formation are the characteristic reparation processes in this variety of carcinoma. The adenocarcinoma shows a tendency to further growth when exposed to rays. However, it soon succumbs if treatment is carried on correctly. Rapid degeneration of carcinoma cells with a rapid and profuse formation of fibroblasts are the regenerative process characteristic for this cell growth.

These cell studies prove the possibilities of the therapeutic action of irradiation. However they do not prove the possibilities of unlimited penetration. To do this, we must have recourse to postmortem findings. For this purpose, we succeeded in obtaining the pelvic organs, *in toto*, of two women who died from intercurrent diseases, subsequent to the administration of radium for carcinoma of the cervix. A short abstract of the histories and the microscopical tissue findings are herewith given.

Postmortem Studies

Mrs. C. L., aged 55, married, nullipara, Augustana hospital number 42536, was admitted March 9, 1915, with a history of having a little blood coming from the vagina for the last three months, pain in the back and, for the last four days, also in the hips; a sticky mucous discharge from the vagina at intervals of a day or two.

The uterus was anteverted, not freely movable, enlarged to about a diameter of 9 cm., and of soft consistency. A small hard mass, of 3 cm. diameter, was felt in the anterior uterine wall near the fundus. The parametrium appeared thickened, the adnexa negative. Diagnosis, myoma uteri.

March 10, 1915: A supravaginal abdominal corpus amputation was performed.

The uterine cavity was distended with thick, yellow pus. The endometrium was necrotic throughout. A soft, oblong myoma, 3 by 2 cm. in extent, was seen in the myometrium of the anterior uterine wall near the fundus. The ulceration and necrosis involved the mucosa of the cervical canal. Microscopic examination of frozen sections of the region of the internal os showed an adenocarcinoma of a mildly malignant type with a marked leukocytic infiltration. The broad ligaments were hard and infiltrated.

The precarious condition of the patient forbade a radical extended panhystereotomy. The bleeding points were ligated, a drain inserted, the abdominal incision closed. The patient was placed in Group 2 for observation under radium therapy.

March 12, 1915: 50 mg. Ra. El. in 1.5 mm. lead filter and 3 mm. pararubber filter were inserted into the cervical canal for 24 hours, i. e. 1200 mgehrs: March 17, for 23 hours, i. e. 1150 mgehrs.; and March 21, for 23 hours, i. e. 1150 mgehrs.; total 3500 mgehrs. The patient made an uneventful recovery and left the hospital April 7, 1915. She accepted a position as a saleslady in a large department store and did not present herself for re-examination, on account of lack of time, until Dec. 12, 1916. At this time, she complained of a gradually increasing pain in the left lower abdominal quadrant and an ever increasing difficulty to evacuate the bowels. The state of her general health was excellent. She was well nourished, had a clear skin, and was able to perform the arduous duties of her position without any difficulties. Rectal palpation revealed a band of firm tissue across the pelvis compressing the rectum. The diagnosis was, obstruction of rectum due to recurrent carcinoma. Symptomatic treatment was instituted.

Soon after, the patient entered the hospital an invalid. A marked distension of the left half of the abdomen was now present. She succumbed March 10, 1917.

The postmortem examination revealed complete obstruction of rectum due to a firm mass in the pelvis compressing the bowel; hydroureter and hydronephrosis on the left side, due to compression of the ureter by the same mass. The pelvic organs were removed in one mass. This was cut in blocks, hardened and subjected to microscopic examination. It was evident that, whatever carcinoma cells were seen, they were in a stage of pronounced degeneration; they were isolated, nowhere appearing in nests or solid masses. There was marked connective-tissue formation throughout and the granulation tissue formation was very marked in the parametrium.

The absence of viable carcinoma cells and the penetrability of the rays with a sufficient intensity to cause degeneration of carcinoma cells in the glands adjacent to the bony pelvis was proven. The granulation process was evidently the cause for the progressive cicatricial contraction that led to an obstruction of bowel and ureter and ultimately to death.

Mrs. A. R., Augustana hospital number 44801, aged 50, married, nullipara, was admitted Oct. 26, 1915, stating to have had dysuria and frequent micturition for the last three months. She never had had vaginal discharges or hemorrhages, but was very constipated of late and complained of a feeling of heat in the small of the back.

Physical examination revealed a proliferating ulceration involving almost all of the vaginal mucosa including the cervical portion. The uterus and parametrium were somewhat rigid, the rectovaginal septum thickened, the rectal mucosa not involved. Cystoscopic examination of the bladder elicited an intense congestion of the mucosa with bulbous edema and trabeculation of the posterior bladder wall. Diagnosis: Carcinoma of cervix, Group 3. Microscopic diagnosis: Medullary epitheloid carcinoma.

Oct. 27, 1915: 50 mg. Ra. El. were inserted into the lumen of the vagina for 24 hours, i. e. 1200 mgehrs.; Dec. 6, 1915, the vagina was free of evidences of ulceration and 25 mg. Ra. El. were inserted into the cervical canal for 24 hours., i. e. 600 mgehrs.; Dec. 26, 1915, 50 mg. Ra. El. intracervical for 20 hours, i. e. 1000 mgehrs.; Dec. 28, 25 mg. Ra. El. intracervical for 24 hrs., i. e. 600 mgehrs.; and Dec. 29, 35 mg. Ra. El. intracervical for 10 hrs., i. e. 400 mgehrs. Total amount, 3800 mgehrs. The patient died suddenly Jan. 21, 1916, while walking on the street.

The pelvic organs were removed *in toto* the same day, and examined in the same manner as in the former case.

Viable cancer masses were evident in places, though degeneration was seen everywhere. It was evident that we did not succeed in killing off the tumor. The

amount of radiation is larger than in the previous case. However, six weeks elapsed between the first and subsequent applications of radium. The effects of the first application could not be added to those of the subsequent course. Hence, underdosation is responsible for the negative results.

We feel, indeed, sorry that we could not collect more postmortem examinations. We hope to be able to add quite a number of cases within the near future. The object of bringing these cases to your attention at this time is, to request you to report similar observations and thus contribute to the solution of many disputed assumptions.

Conclusions:

1. Statistics of uterine carcinomas treated by radiation can be of value only if based on a proper grouping of such tumors.
2. The indications for the various modes of technic of treatment with radium, also, must be based on such a grouping.
3. The evolution of a correct and efficient technic is solely dependent on physical, anatomical, biological and clinical observations.

Presentation of a Case of Prickle-Cell Carcinoma of the Penis Treated by Diathermy and Radium

By B. C. CORBUS, M. D., F. A. C. S., Chicago, Illinois
Chief of Staff, Illinois Social Hygiene Dispensary

ACCORDING to Hazen, the researches of Krompecher and Bloodgood have definitely established the fact, both chemically and pathologically, that tumors arising from the superficial epithelium are of two varieties, prickle-cell and basal-cell.

The prickle-cell carcinomas are most common on the mucous membranes, especially of the lip. They form the vast majority of all cancers of the extremities and may occur anywhere on the cutaneous surface.

The relative frequency of carcinoma of the penis, compared with its appearance on other parts of the body, has been estimated as being from 2 to 3 percent.

Location

Prickle-cell cancers arise most frequently from either arsenical or Roentgen-ray keratoses and, according to Hazen, less frequently from scars due to burns or wounds that have healed by granulation, from leg ulcers, from wens and from various chronic dermatoses. This is especially true in cancer of the penis, where the tumor begins on the glans or inner leaf of the foreskin as a result of a chronic balanoposthitis with resulting retained smegma and decomposing urine.

Appearance

Nothing can be added to the description of these tumors, as they have been well described and studied by numerous observers, prominent amongst whom are Barney and Cunningham.

Metastasis and Pathology

Prickle-cell carcinomas, as a rule, metastasize to the regional lymphatics, although this may not take place for years; from here, metastases occurs to the lumbar glands along the vertebræ and here the condition may be dormant for a long time, later springing into activity.

Gross Pathology.—When a prickle-cell cancer is excised and cut through, three things are to be noticed: first, that the surface is rough; second, that the infiltration is deep; third, that the cancerous alveoli radiate downward in the form of white lines, about the size of a very fine thread.

Microscopic Pathology.—When a section from a prickle-cell carcinoma is stained with hematoxylin and eosin or with a similar combination of acid and basic dyes, it is noted that the cancerous alveoli are large, and that there is a great tendency for whorl formation to occur. These whorls are very apt to result in epithelial pearls. In addition, the individual cells are large and stain intensely with the acid dyes.

Diagnosis

The solution of the cancer problem lies in the early recognition of the disease and its

adequate treatment. This can be best accomplished by educating the medical profession to recognize it in the early stage, and the laity, to seek early advice.

With an early diagnosis and with immediate and proper treatment, the prognosis is excellent. In late diagnosis, even with skillful treatment, the prognosis is fatal. If hematuria had the same effect on the physician and layman as hemoptysis has, few tumors of the urinary tract would go undiagnosed.

According to the best authorities, under no circumstances should a section of a growth be removed for diagnosis by simple excision; for, such a procedure leaves the blood vessels and lymphatics gaping and favors the dissemination of the cancerous process, in as much as malignant cells can readily enter the circulation.

Of late years, the procedure of diagnosing genital ulcers has been so well established, by the process of elimination, that it should not be difficult to recognize a cancerous condition without excising a piece of tissue for diagnosis.

Treatment

The treatment of cancer depends upon the diagnosis. The earlier a diagnosis is made, and treatment instituted, just so much more promising is the prognosis.

So discouraging has been the treatment of cancer by the knife, that the growing tendency, especially in bladder tumors, is to avoid any procedure that might produce metastases.

Beer, in his recent contribution to the operative treatment of neoplasms of the urinary bladder, says that it is necessary, in working out a technic, to keep constantly in mind that every step of the operation must be worked out so as to avoid implanting tumor cells on raw or cut surfaces. The same holds true in cancer of the penis.

In order to avoid any cutting procedure, many methods have been advocated, chief of which are, cauterization by the hot iron; still later, electrical desiccation or coagulation, together with ferments or enzymes.

What promises to be the most successful method of treatment is massive electrical coagulation by means of diathermy.

For the benefit of those who do not understand what diathermy is, the following passage, quoted from Claude Saberton on "Diathermy in Medical and Surgical Practice," just issued, may be of interest.

"Professor Zimmern, of Paris, has defined diathermy as "a form of thermotherapy which utilizes electrical energy for the production of thermal effects in the depths of the tissues."

In order to raise the internal temperature of the body, we must employ currents which reverse their direction many thousands of times per second, i. e. high-frequency currents.

Franz Nagelschmidt, of Berlin, modified and developed the high-frequency machine in order to obtain marked thermal effects, and called the treatment "diathermy."

He demonstrated a diathermy apparatus designed by himself and, in 1907, at Dresden, he demonstrated the "heating-through" of tissues by high-frequency currents, suggesting their use in the treatment of diseases of the circulation and the joints. In 1908, a joint paper, written by von Berndt, von Preiss and von Zeynech, laid stress on the diathermic effect of high-frequency currents and advocated their use in the treatment of joint diseases. In 1910, Eugene Doyen communicated to the International Congress of Physiotherapy an account of the treatment of cancer by means of electrically-produced heat."

While diathermy has been used on the Continent and in England for some time, the American surgeons seem to be far behind. However, to Dr. Gustave Kolischer belongs the credit for first using and demonstrating its wonderful effect in destroying cancer tissue, in this country.

Norman Patterson, writing in the *Lancet* (London), December 6, 1919, says "No excision of a carcinomatous growth in the tongue, mouth or pharynx, however small that growth may be, should be carried out with the knife if diathermy is available."

The Case History

The case which I present has the following history:

M. T., 40 years old, Chicago.

Family History.—Father died at 70 of unknown cause. Mother died at 69 of unknown cause. One sister died at 56 of alcoholism. Two sisters living and well. One brother living and well. No carcinoma, tuberculosis or insanity in the family.

Marital.—Married 15 years. Wife always well. Two children living and well. Two children died in infancy of contagious diseases. Wife had no miscarriages or stillbirths.

Habits.—Eats—well; sleeps—well; alcohol—none; tobacco—moderately; drugs—none.

Past History.—Always well until present illness. No diseases of infancy. Accidents—none. Operations—none. No other generalized symptoms. No headaches, edema,

cardiorespiratory, gastrointestinal or neuromuscular complaints.

Genitourinary.—No gonorrhea or syphilis. No frequency or dysuria.

Present Illness.—Onset.—Five years ago, a small wart-like growth appeared just beneath the foreskin in the sulcus coronarius, on the ventral surface. Patient had a persistent phimosis for years before this. He consulted Dr. X. Y. Z., who circumcised him, at the same time removing the growth.

Course.—Following circumcision, which was done on March, 1916, the skin all around the penis failed to heal and became infected, followed by a profuse yellowish discharge. This continued for 3 years. No treatment other than boric acid applications was ever given. After two years, the granulation tissue about the old incision began to become hard and nodular and to heap up. This gradually continued until the growth became as big as a small orange. The patient worked up to August 1920, when he had to give up going about because the odor from the lesion became so disagreeable. During all this time, his general health was excellent and he had no urinary or rectal symptoms at any time.

Glands.—Never swelled up or became tender until June, 1920. At this time, the growth was very necrotic and sloughing. The glands enlarged very gradually until they were the size of a large pigeon's egg.

Destruction of Tumor by Diathermy.—This was done by myself at the Evanston hospital on October 7, 1920. Dressings of vaseline continued. Slough separated completely on the tenth day leaving a clean granulating surface.

X-Ray.—Two x-ray treatments were given over the groins during the last days of October.

Radium.—November 1, radium treatments (four in number) were given by Doctor Hanford. Severe reaction in inguinal glands and about penis, followed by marked cleansing of granulation tissue and increased vascularity to areas about edges.

Radium needles were inserted into either groin for 8 hours at C. C. H. by Doctor Hanford, with marked reaction about granular enlargement.

Examination, March 15, 1921. Improvement is so marked and tissues are so free from noticeable cancer-tissue, that a skin-grafting operation is performed.

Conclusion

While nothing spectacular is expected in a case that has gone for four years without a diagnosis, it was interesting to see how easily this enormous fungating mass could be removed with diathermy and replaced by healthy granulation tissue.

By the diligent application of radium, what remained of the cancer tissue and the inguinal metastases, has greatly improved; but, unfortunately the deep common iliac vessels are already involved.

The X-Ray in the Diagnosis of Pulmonary Tuberculosis

By ALLAN J. HRUBY, M. D., Chicago, Illinois
Medical Superintendent, Municipal Tuberculosis Sanitarium, Chicago

RADIOLOGICAL examination has been made use of liberally in the examination of the chest of patients presenting themselves for examination at the dispensaries and for treatment at the Sanitarium. In 1920, there were 1236 chests examined stereoscopically and 1431 chests were fluoroscoped. The plates are read by the physician who has made the clinical examination and, at times, in consultation with other members of the staff. The method of sending interpretations and diagnoses made by the radiographer to the clinical department, as is done in many institutions, is not followed by the Sanitarium staff. We examine all of our plates stereoscopically and believe that this method is far superior to the study of the single plate.

In a great percentage of cases, a radioscopic examination precedes the radiographic examination, the value of the radioscopic examination being, that we get a motion picture, as it were, of the chest cavity. We are able to study the motion and the lighting up of the apices and to note particularly any unilateral or asymmetrical shadowing, excluding as a possible cause any abnormalities of the skeleton, glandular enlargements, thyroid enlargements, esophageal dilatations and similar things (See Plate No. 1). We can also study the respiratory excursion and the movements of the diaphragm; further, the hilus and the mediastinal glands.

Radioscopy is likewise an aid in differentiating mediastinal neoplasms from aneurysms, as well as aiding in differential diagnosis of circulatory conditons in the lungs from pulmonary tuberculosis, as has been described by Mortenson and Pritch-

ard[1]; because, in the above-mentioned examination, we are enabled to study the size, shape, position and beat of the heart.

I wish to illustrate, in plates 1, 2 and 3, the rather close resemblance of medias-

Plate No. 1.—An esophageal dilatation—caused by a carcinomatous stricture at the cardiac orifice. The rœntgenogram alone does not make clear the condition and must be supported by the fluoroscopic examination.

tinal enlargements which are readily differentiated by the radioscopical examination; in plate I, with the aid of the bismuth meal and, in plate 3, by noting the distinct expansal pulsation of the mass. In

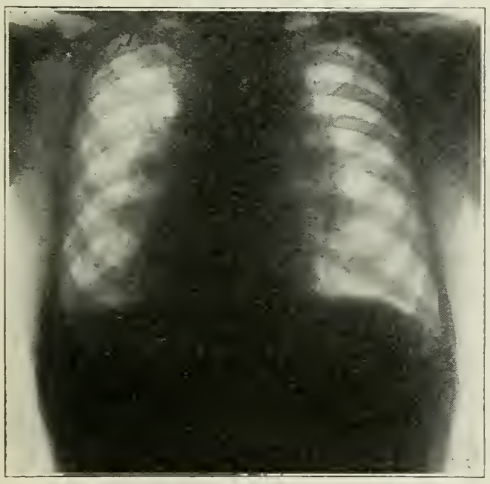

Plate No. 2.—Enlargement of the mediastinal and hilus glands. The rœntgenogram, of course, can not give us any information as to the cause. Other clinical and laboratory methods must be used for this purpose.

studying the mediastinum radioscopically, it is of course necessary to place the patient in all of the various positions, that is, the frontal, dorsal, transverse and oblique, for the purpose of obtaining a good view, particularly the right oblique for examination

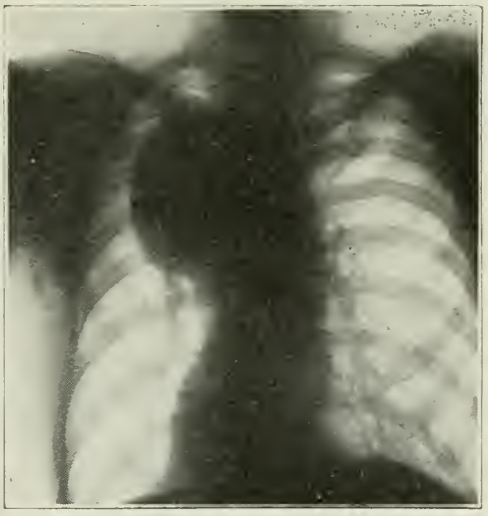

Plate No. 3.—An aneurism of the aorta. The fluoroscope revealing a definite expansil pulsation. In this case, the physical examination revealed but little. The diagnosis is being made entirely by the rœntgenoscopic examination.

of the aorta and the left oblique for the esophagus.

Radiography Supplements Other Clinical Data

Radiological examination is not entirely relied upon for a diagnosis but only in conjunction with a careful history, physical

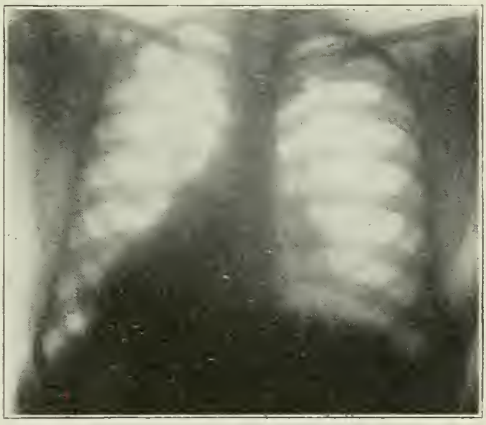

Plate No. 4.—Skiagraph of chest which represents, on physical exploration, findings of a distinct consolidation in the left base, as charted in plate No. 5.

and various laboratory examinations. When clinical examinations must be hurried, though, because of an abundance of material, we find that the x-ray affords an excellent means of checking up on the clinician's

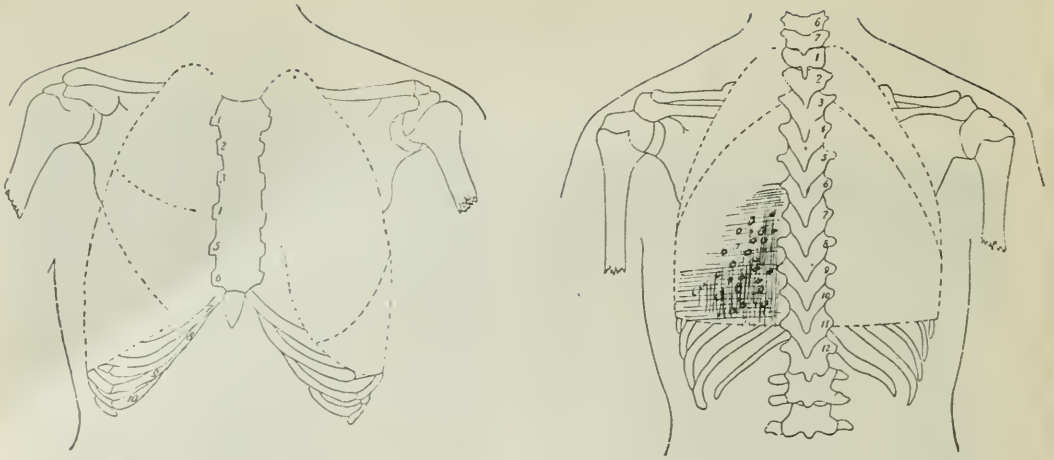

Plate No. 5.—Shaded area presenting signs of consolidation—dullness, bronchial breathing, bronchophony and rales.

work and that it stimulates a careful analysis of the conditions that present themselves. Yet, we do not adopt radiographical diagnosis as final nor do we hope to have it replace the clinical examination.

Radiographical examination often gives no indication of the pathology present in the chest. By way of illustration, in plate No. 5, we see the findings of percussion and auscultation in the left lower lobe. The findings are those of a distinct consolidation; but the peculiar situation of the shadow of the consolidation, blending with that of the heart shadow, makes the radiogram (see plate No. 4) appear negative. Perhaps, if the picture had been taken in the right oblique position, the pathological area could be shown.

In comparing the result of the physical examination with the findings in the radiogram, I have found in a series of cases that the physical signs are less than those of the radiogram in 55 percent, greater than those of the radiogram in 20 percent and about equal to them in 25 percent of the cases. A great percentage of the first group were early incipient cases with involvement of one or both apices. In the second group, were represented a number of cases complicated with diffuse bronchitis which gave evidence of a far advanced phthisis; and, yet, the x-ray picture revealed but an incipient or a moderately advanced lesion, the bronchitis clearing up after a short sojourn at the sanitarium. A few cases were also complicated with a heart lesion causing extensive pulmonary findings, because of the accompanying passive congestion which cleared up on rest and digitalis, leaving only the lesser findings as demonstrated by the x-ray plate.

Walsh, Wood and Thompson[2] present an interesting comparison of the physical diagnosis and x-ray diagnosis as checked with autopsy giving the following results:

	Perfect	Fair	Wrong
Physical Diagnosis....	62	28	10
X-ray	43	19	38

We have found that the radiological examination has its distinct value, first, in aiding us in the differential diagnosis of pulmonary pathology. I have pointed out[3] the aid of the x-ray in diagnosis in my monograph on non-tuberculous pulmonary and glandular infection. In this paper, I have cited a series of cases simulating pulmonary tuberculosis, some of which had been admitted to the Sanitarium as such. Among this series of cases, was one of a pleural foreign body. However, since writing that paper, I have collected three other cases of thoracic foreign bodies which I will herewith describe. In the detection of foreign bodies, the radiographical examination is paramount and goes to prove that no clinical examination of the chest is complete without it.

Foreign Bodies in Chest Cavity

Patient F. S. No. 10632. Age 13. Male. Admitted to the Sanitarium on May 28, 1920. His family history for tuberculosis was negative. He complained of a discharging sinus in his right lower axillary region which was present since his operation in the Spring of 1915 for empyema. He was operated on again, in 1916, for this drain-

ing sinus and a secondary rib resection was done, with a tonsillectomy; still, the sinus kept on discharging. He failed to gain in weight, was easily fatigued, had a marked pallor and complained of shortness of breath. He complained also of a slight cough with

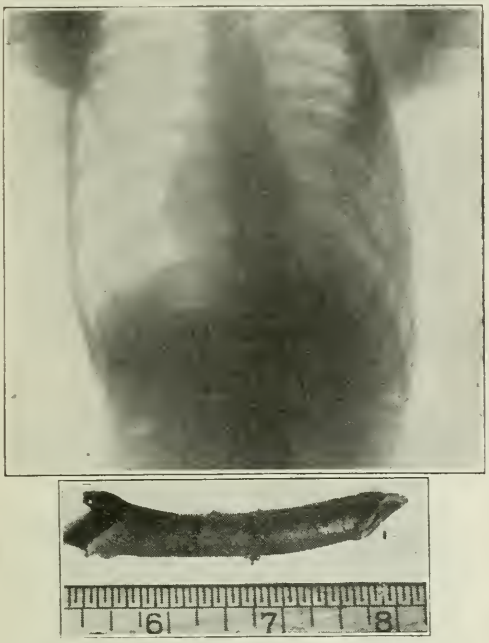

Plate No. 6.—A radiogram of a pleural foreign body.

but little or no expectoration. Examination revealed a poorly nourished boy with marked pallor, a discharging sinus in the right lower axillary region, an afternoon rise in temperature with an accelerated pulse. Clinical examination of the chest revealed the findings of a chronic pleuritis. Repeated sputum examinations were negative for the bacillus tuberculosis, as was also the complement fixation test for tuberculosis. The skiagraph revealed the presence of a foreign body in the pleural cavity, which proved to be a short piece of rubber tubing such as is used for draining empyemas. See plate of the roentgenogram No. 6. The boy made a prompt recovery with a marked improvement in his general condition after the tube had been removed.

Patient H. D. No. 7826. Age 16. Male. Admitted to the Sanitarium on June 20, 1919. Family history was negative for tuberculosis. The boy was always well except for an attack of scarlet fever at the age of 12 and one of measles at the age of 5. He had a tonsillectomy done at the age of 14, two years prior to his admission to the Sanitarium and had been ill since that time. Following the operation, he developed a definite attack of pleurisy with pain in the right lower chest; had a severe cough, which was productive of a foul sputum; and had a very foul breath. He complained of recurring chills, fever and sweats, with a definite loss of weight. About two months prior to his admission to the Sanitarium, he developed a pain in both knee joints which was associated with some swelling and heat of the parts. Physical examination showed an undernourished and undersized lad with a foul odor to his breath. The chest revealed definite signs of infiltration in the right lower chest. There was a definite, limited expansion of the right chest with dullness over the right lower lobe; a marked abundance of moist rales, asthmatoid wheezes and rhonchi, with breath tones sometimes diminished or almost absent and at times definitely bronchial in

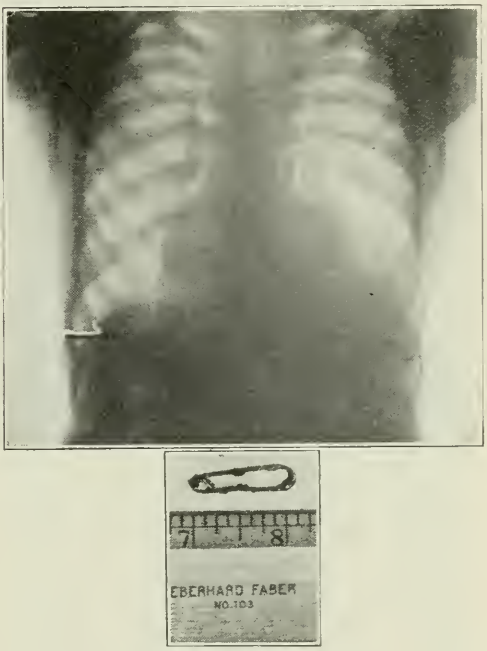

Plate No. 7.—A radiogram of a bronchial foreign body.

character. The sputum was negative for the bacillus tuberculosis as was also the complement fixation test. The x-ray revealed a foreign body in the right bronchus (See plate No. 7). This was removed for us by Dr. Boot, of the Cook County Hospital staff, by doing a tracheotomy and inserting the bronchoscope. We later caused a vaccine to be made for the purpose of treating the metastatic infection, and we collapsed the lung by artificial pneumothorax for the treatment of the abscess, which treatment caused a prompt and complete recovery.

I wish to quote a summary of McCrea's Study of Chevalier Jackson's cases of Bronchial Foreign Bodies.[4]

1. "Cases of foreign bodies in the

bronchus are not mere curiosities but are more common than we suppose.

2. "There may be no disturbance at the time of entrance of the foreign body and no suggestion in the history of such a happening.

3. "Certain signs are of value; especially, decreased expansion of the affected side; the presence of very fine moist rales; the asthmatoid wheeze; and that 10 to 15 percent of the cases are not demonstrable by the x-ray.

4. "Some foreign bodies, such as peanuts, set up a very acute general process which is fairly distinctive. Other structures, such as metallic objects, cause permanent changes usually in a lower lobe.

5. "The chief errors in the diagnosis are, to mistake the signs for pneumonia in the early stages and in the acute cases, and for tuberculosis after the body has been present for some time."

Patient No. 8592. C. B. Age 32. Female. Admitted to the Sanitarium on Sept. 18, 1919. She dates the onset of her illness to a tonsillectomy in August, 1919, stating that, prior to that time, she had been perfectly well. The first symptom she noticed was cough, which soon became productive. In about three days following the operation, she had her first hemorrhage, which was followed by many subsequent attacks of hemoptysis.

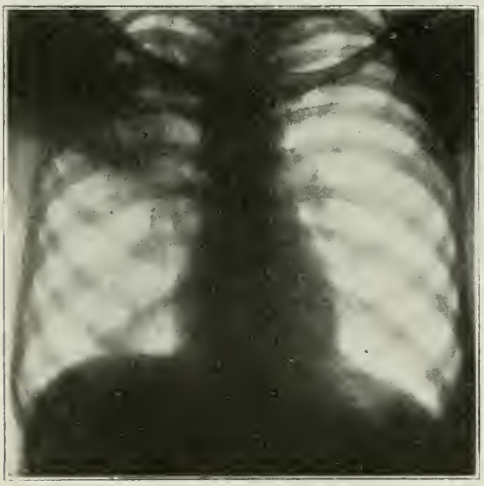

Plate No. 8.—A roentgenogram of a non-tuberculous pulmonary abscess of postoperative origin. Note the striking similarity of this plate with plate No. 9, the latter demonstrating pulmonary tuberculosis of the right upper lobe and showing apical involvement.

Just prior to her admission to the Sanitarium, she had several very profuse hemorrhages which had almost exsanguinated her. She has had hemorrhages of a slight degree during her residence at the Sanitarium. Other symptoms complained of were chills, fever, loss of weight and extreme weakness. The chest examination revealed dullness over the right upper lobe with distinct bronchial breath tones, bronchophony and fine moist rales. The roentgenogram (plate No. 8) confirms the findings of the clinical examination and reveals an area of dense infiltration of the lower portion of the right upper lobe, the apex being clear. The hilus glands are shown to be enlarged.

The history, clinical findings and the roentgenograph would surely make one think of tuberculosis; yet, in spite of the abundance of foul-smelling sputum, the repeated examinations for the bacillus tuberculosis proved negative, as did also the complement fixation test for tuberculosis. The diagnosis of a pulmonary abscess of the right upper lobe of postoperative origin was made on the data given.

We have found the skiagraph of great importance in giving us additional information as to the nature of the lesion, for the purpose of furnishing useful indications for pneumothorax treatment, in checking up the progress of the collapse of the lung and in early diagnosis of any complication that may arise. I have tried to illustrate

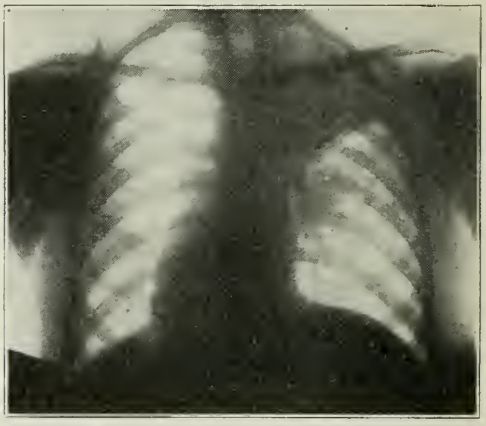

Plate No. 9.—Radiogram showing a definite unilateral envolvement, showing a definite infiltration of the right upper lobe and some shadowing in the upper half of the lower lobe with distinct hilus envolvements. It further demonstrates an excellent indication for pneumothorax therapy.

this very beneficial use of the roentgenogram in plates 9-10-11-12-13 and 14.

Thirdly, we have found the skiagraph to be of value in that, after a diagnosis of pulmonary tuberculosis has been made, it affords excellent opportunity for the study of the exact topography of the lesion. As was stated in the foregoing, I found that, in 55 percent of the cases studied by me in comparison to the skiagraph, the physical signs were less than the radiogram had illustrated. This is due perhaps to the fact that deep-seated lesions, pleural adhesions, enlarged hilus glands, interlobar

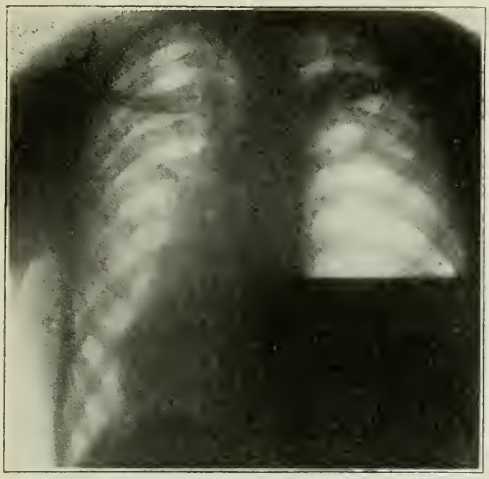

Plate No. 10.—Radiogram showing the same case after the lung has been totally collapsed, showing an unfortunate complication of pneumothorax therapy, the hydropneumothorax.

Plate No. 11.—A pulmonary abscess of the right lower lobe, which has served us as one of the indications for pneumothorax treatment.

Plate No. 12.—See plate No. 14.

Plate No. 13.—See plate No. 14.

Plate No. 14.—Showing the complete collapse of the lung. Plates No. 12 and 13 show the intermediary stages of the collapse, illustrating the value of radioscopical examination accompanying pneumothorax therapy.

pathology, small, deep cavities, cavities walled in by dense areas of tuberculous infiltration often do not reveal definite physical signs. I have found also that infiltrations of the outer side of the lower portion of the upper lobes are difficult to determine by physical diagnosis alone.

The skiagraph may also aid in determining the activity of the lesion, as was pointed out by Brown, Heise, Petroff and Sampson[5]. The cases that present indisputable activity show a definite mottling with ill-defined margins described by them as a "cotton ball" or "sheet cotton batting", and described by others as "snowflake" or "snow-storm appearance". It is difficult to illustrate these appearances in

the reproduced photograph, as the condition is best studied stereoscopically and by limiting one's attention to small areas; yet, in plate No. 15, there is a distinct "cottony" fan of infiltration in the right upper lobe, the base to the periphery and the

Plate No. 15.—Radiogram showing a definite fan-shaped infiltration of the right upper lobe draining to the right hilus, also a slight infiltration of the left apex with the stem point to the hilus. A definite increase in the density of the hilus shadows bilaterally.

apex coursing to the hilus. These fan-shaped areas of infiltration have been carefully described by Dunham.

Localized pneumothoraces are at times difficult to differentiate from large cavities by the physical signs presented. Here, again, the roentgenogram aids us very

Plate No. 16.—Illustrating a large cavity in the left upper lobe; showing a definite fluid level.

materially, as is illustrated by plates Nos. 16 and 17. It has often been noted that cavities that were diagnosed by the skiagraph did not prove to be there at the post-mortem examination. Sampson, Heise and Brown[6] have explained this thus, that annular shadows are sometimes caused by interlobar and parietal pleurisy; so that a careful study of the position and persistency of these shadows is necessary with a careful clinical examination before we can definitely diagnosticate a cavity. A multiplicity of cavities is often difficult to

Plate No. 17.—Radiogram illustrating a spontaneous partial or localized pneumothorax at the right base.

Plate No. 18.—Illustrating multiple cavities.

determine by physical examination (See plate No. 18). Then, too, the annular shadows sometimes found in the bases of the lungs are usually non-tuberculous and are caused by bronchiectasis, as is illustrated in plate No. 19.

The radiological examination is particularly valuable in the diagnosis of latent lesions of tuberculosis, and most particularly so because this type of lesion, instead of giving symptoms due to the respiratory tract, gives symptoms affecting other or-

gans reflexly associated. This type of patient usually presents marked impairment of general health, has distinct pallor, has lost some weight and presents symptoms referable to the central nervous system or gastrointestinal tract; namely, loss of appetite, heavy feeling after meals,

Plate No. 19.—Illustrating multiple annular and oval shadows in both apices, illustrating a bronchiectatic pathology.

nausea, eructations of gas, the regurgitation of sour fluids and constipation. The pulse rate is usually slow, the blood pressure is low and he complains of cardiac palpitation; all of these symptoms being brought about by periods of overwork or stress and strain of some nature. The patients read-

Plate No. 20.—Radiogram illustrating a case of latent tuberculosis, showing dense infiltration of both apices and hilus.

ily recuperate after a short sojourn at a sanatorium or a short layoff from work. The physical signs in the apices are meager and doubtful. Plate No. 20 illustrates the radiogram of such a patient who, after a brief stay at the Sanitarium, was very materially improved and was discharged as apparently arrested. From the last report of the dispensary physician, the patient is doing very nicely at his work.

In the incipient or pulmonary lesions at their beginning, it is of course important that we utilize all of the means at our command to arrive at a proper diagnosis; and even then we are in doubt at times. By utilizing all our means, I mean to say those that have to do with a differential diagnosis, as, for instance, the Goetsch test, and the study of the basal metabolism in ruling out hyperthyroidism; the usual long and difficult hunt for a possible extrapulmonary focus of infection, as, chronic appendicitis, infections of the gall-bladder, kidney, prostate gland, sinuses, nose, throat and dental infections. Again,

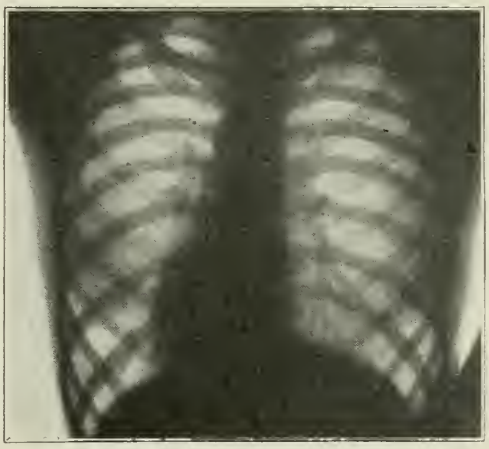

Plate No. 21.—Illustrating an incipient case of tuberculosis. Infiltration of the right apex, definite increase of hilus shadow. Clinically, rales were found in both apices.

the skiagraph aids us very materially in our search for these focal infections. However, even after the detection of the shadow of pulmonary infiltration of an apex of the lung and in the hilus, as the probable cause for the patient's illness, it is difficult to state that the shadow is of a tuberculous nature, as other infections may cause like shadows, as, for instance, the streptococcus pneumonias that go on into a long convalescent period; so that the clinical history, examination and other laboratory methods with a study of the course of the disease are necessary before arriving at a correct diagnosis.

In plate No. 21, I wish to illustrate the radiogram of a young girl who presented

all the signs and symptoms of a chronic focal infection; that is, an afternoon temperature, an accelerated pulse, a marked pallor, loss of weight, with very little or no respiratory symptoms. An abscessed tooth was found and corrected but with no apparent improvement in her general condition. On physical examination of the lungs, she presented harsh, granular breath tones in the right apex with a prolongation of the expiratory phase of the cycle of respiration. The whispered voice was distinctly more intense than in the left apex and this difference seemed more marked than is the normal difference between the two apices. Fine intermittent rales after coughing in the early period of the respiratory phase, were found in both apices; the left apex presented a subdued bronchovesicular murmur. This case is illustrated in plate No. 21. You will note the presence of a slight haziness in the right apex. There is a marked increase in the lympathic tissue of the mediastinum and the hilus has lost its normal crescentic shape. The heart is of the small, dropped type so often found in plumonary tuberculosis.

To summarize, we have found that radioscopic and skiagraphic examination has helped us very materially—

1. To aid us in the differential diagnosis of chest pathology.
2. To aid us in establishing the indications for pneumothorax treatment and as a guide during the course of such treatment.
3. To afford an opportunity for the study of the topography of the lesion and aid us in determining its activity.
4. In the diagnosis of latent lesions of tuberculosis.
5. In aiding us in the diagnosis of pulmonary lesions at the very beginning.

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A Definition of Electricity

By WILBUR FISKE STERMAN, M. D., Peru, Iowa

SCIENCE divides the atmosphere, chemically, into hydrogen, oxygen and nitrogen; and, physically, into waves of heat, light and electricity.

"In the beginning" the vital forces of nature were thus divided by science and scientists. And as such we have been taught to consider the vital forces of nature. Right here, "in the beginning" and during all the centuries that have followed up to the present day, is where the mistake was made, and now needs to be corrected, so as to understand and define this primary, fundamental and irresistible force truly and correctly.

In my opinion, electricity, from a medical or therapeutic standpoint, is (to the nervous system) nerve force supplied. Electricity and nerve force are identical and, to the nervously needy, it is like borrowing money ad libitum from a bank, without interest, and which never needs to be repaid.

An insulated copper wire is, admittedly, an electric hole in the atmosphere. A nerve fiber with its axis cylinder and insulation with the "White substance of Swan" is the same thing in the human economy. A conductor of electricity to regulate the functions of the body, to control sensation and motility, to tell the story to "Central" when all is well or, when anything is wrong, to cry for oxygen and elimination when they are deficient. Electricity is life!

It is not solely from a therapeutic standpoint that this attempt at defining electricity is written; yet, the comparisons outlined above are both true and striking and worthy of consideration.

Electricity Not Made, But Used

Electricity is neither generated nor manufactured. All that frail humanity can do at

the present era is, to excite it—to arouse and stimulate it into action, being careful in setting free this immeasurable power, as it may be stored up in an open switch, able to snuff out a life in the twinkling of an eye.

A cyclone, a hurricane are but air set in motion. It is the same with electric currents where electrons in countless decillions are on the wire, stirred into active life, through a medium called (for the want of a better name) conductor, transmitter or excitor.

The attractive headlines in a recent advertisement of a progressive manufacturing concern regarding the "Marvelous results to be (and being) obtained by the use of the various modalities used at the present time for the therapeutic application of electricity," awakened me from the lethargy of years; in fact, from a "Rip Van Winkle" sleep, stimulating me to write this article which I have had in mind ever since one authority on electricity (Dr. Gibson) was censured by another (Dr. Rockwell) for requesting him to give a definition of that force, before the meeting of the American Electrotherapeutic Association then in session. If these two men are yet living, both will remember the reply that "no one but a fool would ask such a question, and he who would attempt to answer it, would be yet a bigger fool."

This "solar plexus" blow, delivered as it was, in open session from one leading authority to the other, only nettled me to respond and nothing but procrastination has postponed my reply until now.

At that time and at the time when I first began its use, electrotherapy was considered quackery by the rank and file of practitioners of medicine and surgery as, also, by many leading authorities.

Still, after successfully using the various modalities for the therapeutic application of this unknown power, for over twenty years, and still using them successfully where other means fail, I have never been listed in the category of quacks nor made to feel any opprobrium. It is, therefore, with a sense of satisfaction that I now perceive and feel the awakening that I hope will help to place this therapeutic agent where it properly belongs.

What Is Electricity?

I realize that I am just such a fool as to attempt to define this subtle, irresistible power that permeates all nature and lies hidden everywhere.

In the beginning, the vital forces of nature were divided into heat, light and electricity. This has been handed down to us one generation after another without question; yet, this was an error.

Search the lexicons, peruse the opinions of the authorities, delve into the various sciences: the sum and substance of them all originated in a theory and an order that is *wrong end to.*

Gravity, attraction, affinity, magnetism, heat and light—electricity is the force behind each and the parent of them all. Even the sun, that shining orb of life and health to vegetable and animal existence, is today presumed to be but a ball of electric fire whence we feel and know the power and without which—how long would we and this world survive? A force that hurls five cubic-miles of solid earth into space with such velocity that not a foot of it can be found or accounted for is more than pentup gas, fire or steam. A force that will give heat, life and light, destroy organic matter, produce in the human body a curative therapeutic action or cause molecular death of the same structures if overexposed, must necessarily be considered a *vital force.*

A force that will melt steel and weld the armor plate of battleships, increasing their strength and carrying-power and speed, and at the same time decreasing tons of weight, means much to the naval strength of the defender so constructed and to the commerce of the nations of the globe.

A writer in the *American Magazine* aptly recited the primary and accidental discovery of this force when he said: "The era of human civilization began when two substances were accidentally rubbed together, producing friction and a spark." In other words, when electricity was first stimulated or excited into activity, it set into motion the fullness of a surcharged nature with its boundless and incomprehensible power which no man made barrier can withstand.

Radium Electric In Nature

Radium is a substance that will give light and energy for centuries without appreciable or perceptible loss. It is, in my opinion, of electric origin and composition but exceedingly difficult to trace to its true condensation.

Through its study, science has been rudely awakened to the fact that radium and its

peculiar power can only be accounted for with the aid of an electrical hypothesis, based on the existence of "electrons."

In his recent work on surgery, quoting various authorities or opinions, Ochsner states: "No observer of the action of radium can fail to be impressed with its terrific penetrating force which no material substances, even metals, are capable of resisting. The severe test with an inch thickness of lead shows that this is a barrier to its penetration only for a time. One thinks he is immune from its action when he carries radium in a lead box of a quarter inch thickness, but soon discovers his fingers becoming tender from it.

"The many streams of penetrating particles emanate in unceasing flow from the eternal disintegration of this material. They travel in undeviating lines in all directions, barriers of varying resistance retarding them only for a time. They enter space, but are never lost in it.

"The nature of this matter is now sufficiently understood to define it as a discharge of infinitely small particles, mostly bearing an electric current, some positive and some negative, called "electrons." The eternal breaking up of radium particles is not unlike the change and decay that characterize all matter, and differs only in being so much faster than anything heretofore known, that it can be seen, measured, and applied. All other metals are undergoing this forcible change but, with them, it is so many million times slower that it cannot be identified, studied or used, though it can be computed.

"The force we are dealing with, then, is a stream of electrons which we spray upon a diseased part studying the effect which follows. Whether we use a nearly pure salt of radium, like the pure radium bromide, or an impure radium-barium sulphate, chloride or carbonate, of one-third or one-tenth strength, we are applying the same force and obtain the same effect if we give a proportionate exposure.

"It will be essential to intelligent understanding of the action and value of radium to know a little of the detailed physics of electrons. A few words comprehend the whole. [? ? ? W. F. S.]

"There are three kinds of particles issuing from the disintegrating atom:

"One, slow-moving and heavier than the others, each particle carrying a charge of positive electricity (*if, indeed, it be not electricity itself, as Clifford suggested. W.F.S.*) The alpha series travels in straight lines but has a small radius of action.

"The second, and most important, the beta series, much faster and lighter, each particle carrying negative electricity.

"The third, the gamma, practically a neutral electron, travelling nearly with the rapidity of light and almost undeviated by the magnetic current.

Electricity the Basic Force of Life

"The effect on animal and vegetable life is the same. *There has never been any known difference between the vital force actuating a cell of animal or vegetable structure. It is fair to say that science is about ready to admit that electricity is the basic force actuating animal life, energizing nerves and muscles, tactile sense and cerebration. The recent study of cardiography by elecrical conduction, whereby disorders of rhythm and function of the heart can be studied a half mile from the bedside, stand sponsor, if any were needed, for placing the responsibility on correct electric charges for normal action of our bodies and on a disordered electric action for their variations.* (Italics mine.)

"Having grasped this idea, we easily take the next step and note the pathological charges in the cells of our complicated bodies, indicated by stimulation, repression, decay and death.

"It is reasonable to offer a working hypothesis at this stage of our study, based upon grounds consistent with our limited knowledge. [Well said: W. F. S.]

"It seems reasonable to think that the orderly growth and life of a cell is due to a balance of its electric charges, positive and negative existing in each cell. When we find a small tumor composed of an over-growth of cells normal to the part, we must admit that some force has gone out of or entered into its life which has caused the disordered growth. Its balance has been disturbed. If, at this stage, we supply it with electrons, of one or another kind, and see a rapid return to normal growth, there can be but one logical conclusion, namely, we have supplied the needed force that was lost. Just at this point, we face the discovery that a shower of negative electrons freshly liberated from radium will cause a stunting of cell growth. Facts which will be demonstrated and illus-

trated further on are these: Growth composed of overgrown masses of cells return to orderly growth permanently when the exact dosage of negative electrons are shot into them. Growths to which too much is supplied undergo atrophy and, if excessively oversupplied, they undergo death. We may assume, therefore, that the dosage must correspond with the loss. We are thus coming closer and closer to the unfolding of one of the puzzling problems of life, namely: What is inherent in the nucleus of every cell that causes its stability? In the Cosmos, we turn to students of geology, zoology and biology to learn that new thoughts have been evolved to elucidate a better understanding of the origin of life on earth. Definite propositions, based on fact, have been recently set forth by Prof. H. F. Osborne in an address before the National Academy of Science. The ripe thought of scientists turns to chemistry to provide the substance and framework to explain this earliest protoplasmic development after the earth crust had cooled, and water and rock disintegration, with nitrogen, carbon and oxygen, gave material to form corporate material for electric stimulation to vitalize. These electrons originated, perhaps, from friction of elements, from atmospheric discharges, or, who can say, radium latent in the earth, or electrons shot through space.

"It is a little surprising to see the trend of scientific thought toward electricity in recognizing the probable vitalizing life force. It lends much weight to the growing recognition of the latent force residing in radium or issuing from the roentgen-tube which is counted only in terms of electrons.

"It is no flight of fancy to regard the force in radium as incorporated life or the electrons as imprisoned life released. The pathologist then must take his cue from the scientist and accept the view that protoplasmic matter is endowed with one vitalizing actuating force, viz.: electricity. After its initiation, matter thus endowed proceeds on its career of more and more complicated development and combinations until infinitely complex beings like the human body are developed. In such complex machinery, however, *there remains the solitary force behind the life of every component cell."* (Italics mine.)

The *Scientific American,* in harmony with the general electrical awakening and advanced trend of present day thought, states that, "The long arm of electricity . . . . has conveyed the force of falling waters miles away to push a thousand cars. It has transmitted light into a million homes. It has carried the faint voice of a child across the continent. Now it wraps its strength around the voice of the orator and gives its power and volume to reach the distant auditor." . . .

"As the modern surgeon can take amazing liberties with the human body to rebuild and revive it, so the telephone engineers have been able to take great liberties with audible speech, transmitting it into electrical waves and building up the force of these without destroying the sounds which finally reach the ear of the listener. Speech, electrified in one way, can be sent for thousands of miles along a wire. Electrified in another way, it can be hurled through cities, across continents and oceans. Again, electrified in another way, it can be discharged from a receiver's horn with such power that it will travel through the air as the natural sounds travel but to a much greater distance and in a manner to dominate other sounds."

Also the following, from the *Seattle Times,* gives a glimpse of the general awakening of the latent power of this unknown force:

"The day is rapidly approaching when not only lighting, but heating (domestic and industrial) will be accomplished by electrical energy. When practically all machinery, save in districts contiguous to great mines, producing a good grade of coal, cheaply, will be driven by electricity; and railroad, suburban and urban transportation of all kinds will utilize this same power."

This prediction, however, is based on the use of the world's waterfalls and waterpower as the fulcrum of production.

Electricity, the Universal Agent

We have seen the onward march and caught the sound of the universal electrical awakening. With the dawn of an electrical age now upon us, we may look for more tangible development; for the day when all these things will be done by electricity alone, when it will furnish the power from nature's inexhaustible supply; when electricity will be recognized as the force behind all chemistry, all action, all reaction, all evolution, all revolution, all attraction,

and all repellance; the body and soul of all nature, all animation and all life; when radium and all radioactive substance will be known as by-products of electricity,of buried and condensed, electrical power, extremely dangerous; its action but partly known, and but little understood.

In nature's subterranean laboratory of the Almighty, with electricity the subtle changing power and earth's center the crucible, the precious and grosser metals are formed, the distilled oils and gases driven by pressure through the crevasses and sands into retorts, hundreds of miles from their true source. In radium or its similars, or congeners, the electric force is condensed in such manner that it is constant, nascent and inexhaustible, acting by catalysis on the elements (or atmosphere) with which it is thrown in contact, giving off the various poles dependent upon its nearest assistant, or adversary whence its power is to be determined.

A faint human conception of this subterranean laboratory may be glimpsed by a perusal of "The Phantom Ship."

Electricity is a force which has been harnessed, controlled or comprehended (present science and scientists to the contrary, notwithstanding) only in sufficient degree to *hint* at its true strength and possibilities of future development, its power to destroy at one full stroke the pygmy (man) who makes an attempt to bend it to his puny purposes. "A flash of the lightning, a break in the wave, man passes from earth to his rest in the grave." A force least understood alike by physicists, scientists and chemists, yet studiously tampered with by all; a force which fills all space, "Earth, Sea and Sky," reaches from pole to pole, and from planet to planet, holding each in space by electrical attraction, and giving to each and to all, heat, light, animation, life, and the equilibrium to perform their hourly, daily, monthly and yearly revolution, with their resultant seasons: Omnipotent, omnipresent, all-pervading, all-powerful and everywhere. *What is it?*

What Is It?

Let the wise men of the present generation reverse the teachings of their ancestry that the ether waves surrounding the earth are composed of heat, light and electricity, important in the order and ratio named. Let them replace this time-honored and time-worn axiom with the twentieth century definition of electricity, light and heat, given in their proper order and importance for the first time, because electricity is the true source and the parent of them all.

Again, while science and the world consider the present era of progress, "The Electrical Age," let them please face about and be prepared to admit it and accept it as only the beginning. Only the dawn of an electrical day, the day to establish the replacing and displacing of every other form of energy and power. The day is approaching when this power will be automatically garnered from the atmosphere and made to drive aerial flights, to conduct all the activities and commerce of the world, and to lighten the burdens and lengthen the lives of the human race.

The day is not remote when, by and through its own reactionary self with control of its electrical content, the air resistance, or atmospheric pressure will be electrically neutralized; gravity partially overcome and aircraft rise to a stipulated, ascertained altitude; and, through this potent electrical power as a safeguard, let the earth revolve beneath it at a rate not even dreamed of at the present time.

The present problem and the ultimate solution of the power of electricity mean that we have at the present time only reached the shore and only touched the edge of an electrical sea which lengthens far beyond the horizon of our limited view, on unto endless space.

I assume that radium is the embers, or residue, of an electrical conflict within the bowels of the earth, where positive and negative electricity have worn themselves out in the pent-up conflict for supremacy, and have gone to sleep in a neutral form, only to be awakened into life and action, as either positive or negative electricity, dependent upon the character of the stimulant which is encountered, to rouse them into activity and life; for, electricity as contained in the atmosphere arouses this sleeping force, creating heat, and the rays that are so mystifying and potent as a therapeutic puzzle.

The reader has, long since, seen the trend of my argument and is no doubt prepared to either accept or deny the definition of electricity as viewed and expressed, and tersely stated as *the primary, paramount and fundamental force of all nature.*

Electrotherapy

By R. OBERHAUSER, St. Louis, Missouri

"The miracles of yesterday are the scientific commonplaces of today."

"The great events and accomplishments of an era must be viewed at a distance of years to get their full significance, but—the man moving among them is, either the obstructionist, the passive nonentity, or the man of faith who puts his shoulder also to the wheel."

ELECTROTHERAPY is the treatment of disease by electricity, Nature's great vital force, which exercises its potentiality upon the star and upon the atom.

To think that the same element, which Franklin plucked from the sky, the very lightning which as an unseen current lights our lamps, bears our burdens, moves our motors, whisks messages over the oceans and carries the voice across continents—to think that this marvelous power has been harnessed to be therapeutically directed by you for the benefit of mankind!

There can be no doubt that, whenever the body is highly electrified, it is at the flood tide of vitality.

In his article on "Life and Psychology" Dr. D. S. Haswell says, "The cell is the unit of animate masses or entities, the life of which is the sum total of the life of its individual constituent cells.

"Cells are miniature electric batteries which, under proper conditions, discharge their energy. When stimulated, cells convert their potential into kinetic energy. Muscular contractions, heart beats, and the like are attended by a discharge of electrical energy—a fact which, although their discharge is immeasurably small, nevertheless has been demonstrated."

According to Virchow, all disease is directly traceable to the individual cells of which the body is composed.

Dr. Matijaca says, "Repair of injury or recovery from disease of any kind depends then upon the proper kind of reaction by living cells to the injury produced, to the germ present or the toxic element within the system."

The therapeutic application of the electric current in a scientifically selected modality produces an energizing and vitalizing effect on the body cells that enables them to overcome diseased conditions.

Read the preceding five paragraphs again—realize how illimitable are the curative possibilities of electricity.

What progressive triumphs of therapeutics are his, who realizes these possibilities and persistently strives to reach them.

What joy of attainment; what intense interest are his as he observes, develops and increases this modern remedial power!

Electrotheraphy Not Modern

Electricity was known to the Greeks as early as 640 B. C.

Dr. William Gilbert, physician to Queen Elizabeth, began the use of electricity for the relief and cure of disease.

Between 1750 and 1757, cures of paralysis, nervous affections, rheumatism, neuralgia, and similar affections, through the means of electricity, were reported by Brydone, Sauvages, Bertholn, Spray, De-Haen, Shaeffer, Nebel and others.

The true physician wants to obtain therapeutic results; the method is of less consideration to him.

In the various modalities of electricity, we have found remedies which are just as much "medicine" as are drugs. Every physician who uses electrotherapy in his practice will almost daily discover new uses and effects therefrom.

Wide Range of Electrotherapeutic Action

By means of different electrical currents and modalities, we are able to cause powerful muscular contractions of voluntary and involuntary muscular fibers; stimulate the nerves and tune them to normal vibration, producing profound sensory effects; relieve pain or overirritations and inflammatory conditions; dilate or constrict cutaneous blood-vessels and increase or stop hemorrhage; increase or decrease the blood pressure without producing heart depression; correct faulty metabolism and hasten elimination of waste products, such as urea, uric acid, carbon dioxide, solidified lime deposits, and such; harden or liquefy the tissue; produce anesthesia and artificial respiration; decompose and introduce

[1]Of The A. S. Aloe Company, St. Louis, Mo.

through the unbroken skin various remedies direct to the seat of pain with a view of obtaining the desired effect.

The high frequency current is the only agent that we know of today that is capable of causing a natural, adequate reaction in any part of the body desired. There is no organ so hidden or so deeply seated, that it can not be reached by the heat of this current and, of course, without practically any effect upon the skin except that of warmth, redness and perspiration.

Electricity is a remedial agent of very wide range. There is scarcely a condition ot disease but that electricity may be used in some form, either as an adjunct or remedy. Yet, other remedies that do not meet the indications so well are often employed because of a lack of adequate electrical equipment.

It is deplorable to be forced to forego that which is best adapted to the cause because it involves a moderate equipment.

In view of the immense amount of reliable data at hand, showing its remarkably beneficial effect upon various pathologic conditions, the true physician would be lax in his duty to his patients did he not use electricity in the treatment of most of his patients.

The Electric Cabinet—Multum in Parvo

Just a small cabinet and an electric socket—that's the entire mechanical equipment required.

With the cabinet in front of you and the booklet of instructions in your hand, it takes only a few minutes to familiarize yourself with the many useful electrodes included and to master the switches that produce, at your will, the current desired.

Know your cabinet. In other words, spend enough time familiarizing yourself with the mechanical features so that the handling of it becomes almost a second nature. Then you will find that the technic of the various currents presents no difficulties.

Even with the old, crude, cumbersome and inexact apparatus of the past, when electrical measurements were not yet discovered, some wonderful results were obtained through electrotherapy, such as were not possible by other means. The modern office apparatus is a great triumph of harnessing this great natural force for scientific uses so that it can be controlled, measured and applied for therapeutical purposes.

Modern electrotherapeutic apparatus is distinctive, complete and thoroughly practical. Value it as such since it places in your hands the means to further your professional success.

As you succeed in your accomplishments, you will find that the usefulness of your apparatus is multiplied by the addition of other electrodes. The many uses to which your cabinet can be put will prove fascinating as the therapeutic wonders of the electric currents are revealed.

Electrotherapy a Recognized Method

Electrotherapy, by its very merit, even against determined opposition of the ultra-conservative members of the medical profession, has triumphantly won its way to recognition.

The more progressive physicians equip themselves with an apparatus that will meet more indications in pathology than any other one factor in medicine.

Belief in one's own judgment, a firm faith in electrotherapy, and the persistency to keep at it to attain great exactness in this form of therapeutics is all that is necessary to realize deserved success.

The practice of electrotherapy is an ideal specialty for the general practitioner without necessitating confinement thereto. If applied with the same care that other treatment is applied, it will always justify the means. The field of application is so large, indications for the use of electrotherapy are so plentiful and the results so satisfactory that, when once in the field, the physician invariably stays with it.

The benefits of electricity in healing are being realized more and more by physicians in every-day practice. They are achieving the satisfaction, prestige and increased income of additional professional accomplishments. They are familiarizing themselves with their apparatus and advancing from small successes to greater and greater triumphs.

Pause a moment—realize—visualize the great and wonderful field for therapeutic endeavor that lies at your feet, the gates of which are swung wide open.

Enter with an unshakable faith in yourself and in electrotherapy. Apply yourself enthusiastically and with persistence, and you will find that energizing interest which

comes from a fond, eager and intelligent study of your apparatus and the best methods.

Carefully select your cases, apply the prescribed modality with the sureness of a true scientist and you will find the inspiration that comes when the goal looms on the sight. Eagerly you will go on and on and the reward is certain. You will find the great joy of professional achievement.

Deformed Noses and Their Surgical Correction Without Cicatrix

By B. SHERWOOD-DUNN, M.D., Nice, France
Officer D'Académie Corresponding Member Société Obstétrique et Gynécologique de Paris; Ex-Army Surgeon

[*Concluded from March issue, page* 178.]

HERE again, as in the varieties already analyzed, the deformation must be connected laterally with the morphology of the nasal appendix to give us the right to speak of it as deflection. Why do these noses deviate from the vertical? One can admit the arrested development of a part of the bony or cartilaginous framework, or even an excessive development of these parts. But it is not necessary to enter into these pathoanatomical depths. I will simply state that this deviation affects either the whole organ (Fig. 8) or a portion or whole of the cartilaginous structure.

Natural deflection of the nasal bone may also affect the walls or the septum, or one

Fig. 8.

wall alone. The esthetic as well as the pathological results are much the same as in the case of accidental deviations. There is therefore no need to insist upon them.

Among the deformities of the cartilaginous region is one calling for special mention: that of the tip, or end (Fig. 9). Whether it takes the form of atrophy, hypertrophy, or simply the lateral displacement of the nasal architecture, the deflection of the end of the nose is, among all the varieties of unsightliness, one of the most curious, because of the particularly disagreeable aspect which it gives to a face and also because of the facility with which it is possible to effect a radical cure.

Concave Noses

Of all nasal deformities, the concave nose is perhaps the most unlovely. I need insist no longer on the psychical depression which this form of deformity may entail on its unfortunate possessor; I should only

Fig. 9.

be repeating what has already been said with regard to the strongly marked convex and deflected noses.

Here, the cause of the subsidence is due to an accident connected with the nasal framework, either at the level of the bone proper or of the cartilage of the septum; the quadrilateral cartilage (Fig. 10).

Acquired or hereditary syphilis often leads to the collapse of the entire nose; usually only the cartilages of the nostrils are unaffected. Ozena, involving as it does the atrophy of the whole of the nasal skeleton, also inevitably leads to depression and sinking in of the nasal structure.

The two types of concave noses most frequently met with are those shown in Figs.

11 and 12. Sometimes the curve is regular, sometimes it appears as if chopped out with a hatchet, because of the complete collapse of the bones and the perpendicular plate of the ethmoid. Here, also, there are both slight and severe forms. This is easily proved by comparing Figs. 10, 11 and 12.

Other Deformities.

Noses having their lower extremities unpleasantly shaped are almost infinite in their variety and cannot all be described here.

Fig. 10.

The nasal appendix ought to make with the upper lip an angle slightly greater than a right angle. If this angle be less it makes the nose appear long; and the more acute the angle, the more the nose appears to point towards the chin. Such an organ, seen in profile, resembles the nose of Satan as represented in religious pictures. If, in addition, the solid framework is curved, it forms the Semitic nose. This Jewish type of nose, although not the special characteristic of any race, is generally that depicted in the portraits of ancient Rabbis, such as those of Menzel and Israels. Vespasian and Corregio possessed noses of this type. Such a form is not only ugly, but increases the apparent age of its owner. It is by working on this angle, that is to say, by shortening the length of the nasal appendix in such a manner that the naso-labial angle becomes greater than a right angle, that the expression of the physiognomy is changed for the better and the patient appears suddenly younger.

In other cases, instead of being directed downward toward the chin, the nose points outward and forward, so that the distance which separates its end from the upper lip is greater than normal, and we get the pointed nose.

There are other noses having a framework which is quite straight up to a certain point, where it suddenly curves upward, dragging the tip of the nose with it. This is the retroussé nose.

In other examples, although the lower extremity is not turned upwards as in the

Fig. 11.

Fig. 12.

preceding case, the tip makes a slight projection, and we have the duck's or clown's nose.

Crooked nose-ends are often met with. In speaking of deflected noses, I mentioned that they may be so for their whole length or at the end only. When the nasal appendix deviates partially from the median line, it is nearly always at the apex. This deviation is caused by some lateral concussion which the nose has received at the level of the cartilaginous framework. It may also be due to an intranasal curvature of the septum which has carried the nostril of the nose with it and causes a twisted appearance.

Another form which often gives rise to a great deal of moral suffering and requires the surgeon's intervention is that which gives a swollen aspect to the tip of the nose. Not only does the end appear thickened, but the nostrils seem increased in volume and the orifices are wide open.

Corrective Operations

Convex noses: Operations are always performed under local anesthesia, produced by a solution of cocaine-adrenaline. Insensibility once obtained by the endonasal channel, the skin is separated from the underlying framework. This cutaneous sheath is then raised in such a manner as to permit, with the aid of the Clar-reflector, the recognition of the anatomical parts which require removing. These portions once well in view, the superfluous part is removed with the aid of a hand-saw or an electric burr with either a button or a rounded end; a few touches with a file

terminate the work and obliterate any inequalities of the nasal foundation. The skin is usually allowed to readjust itself on its support. The nose remains swollen about ten days. Generally speaking, the patient can, after a fortnight, go out with a transformed nose.

To correct a nasal enlargement without a hump, bring nearer together the two ascending rami of the superior maxillary bones, or ablate them by the endonasal channel when they make too great a protuberance under the skin. According to circumstances, the triangular cartilages and those of the nostrils are also operated upon.

In order to bring the tip of the nose nearer to the upper lip, a rectangular portion of the interior branch of the alar cartilage is removed and the remaining parts are sewn together. To raise up the tip, a triangular piece of the septum is removed with the scissors, and the wound closed by stitching raises the point of the nose. All these methods may be combined according to the variety of nasal hypertrophy under treatment.

Deflected Noses.—Various operations are performed according to the kind of deviation. When the whole of the nose is deflected, the two ascending processes of the maxilla are separated by means of forceps, the frontal bones proper are disarticulated, and the whole placed quite straight. This whole is kept in position by an instrument which the patient wears (after the swelling has disappeared) for several hours a day until the nose is completely solidified.

When the deflection only affects the cartilaginous portion, the first thing to do is, to remedy the difficulty in breathing by a submucous resection; a few days afterward, on the opposite side of the deflection, one or more prismatic segments of mucosa and of cartilage are removed, dividing the cartilaginous plate into segments which are afterwards sutured to form a good shaped straight whole.

Concave Noses.—The question arises whether the nasal depression is of accidental origin and small extent. An injection of hard paraffin is made under the skin at the place where the concavity is situated. The subject of these paraffin injections is a much debated one. Accounts of accidents have been published and, consequently, the ill effects of paraffin are criticized. In an essay by Dr. Grillères ("Plastique nasales", Thèse, Toulouse, 1909) he remarks that the accidents which have been published only arise in those cases where the operators have employed vaseline or soft paraffin, and that, on the contrary, those who have used paraffin melting at 60° C. have never had to register a single accident. Paraffin remains at the spot where it has been injected, and encysts.

If a more marked deformity is to be corrected, grafting has to be resorted to. A bone graft from the patient himself is taken from the crest of the tibia; a graft of the requisite length and thickness surrounded with its periosteum. With this, the nasal framework that is lacking, is reconstructed, under the skin of the nose.

In conclusion, a trained eye alone can recognize what part of the cartilage of the alæ or septum, or what bony portion must be operated on in order to correct such or such a malformation. It is under these conditions alone that good results may be expected.

The Role of the General Practitioner in Urology

By R. J. SMITH, M. D., Salt Lake City, Utah

[*Concluded from March issue, page* 157.]

Studying the Renal Functioning

EVERY physician will recall cases of bladder irritability treated for weeks and months without any permanent relief and without any attempt to locate the true source. Cystoscopy is essential in these cases, reinforced by a complete examination of the urine. The ordinary examination of the urine tells little of the condition of the kidney function. The specific gravity, reaction, color, absence of precipitate,

absence of albumen and sugar, are good so far as they go; what is important, though, is a knowledge of the capacity of the kidney to do its work. The results of a urinalysis do not show this unless supplemented by other and better means. Certain facts in relation to kidney activity need consideration if this subject of renal function is to be properly appreciated. They are physiological facts, well known, yet not always considered at their proper value by the general practitioner.

It will be recalled that the healthy kidney has the power of concentrating and of diluting the urine. The glomerulus secretes water, the canaliculus secretes solids. The function of the glomerulus is, to dilute the urine. The function of the uriniferous tubules is, to concentrate the urine. This prerogative of the healthy kidney is lessened or obliterated in renal disease. It is lessened in proportion to the amount of the parenchyma involved. While the normal kidney adapts itself to the constantly changing conditions in the organism, and has a reserve power which is called upon in times of stress, such as a great increase in water and solid intake, the diseased kidney shows a fixation, a constancy and invariability of the urine secreted. The diseased organ is unable to meet the changing requirements and responds feebly to added stimulation. So, in the examination of the two-hour output of urine for twenty-four hours, it is found that the specific gravity of healthy urine varies with each examination in quite wide limits. There is good concentration of salt and nitrogen. The night urine is small in amount, of high specific gravity, with a high percentage of nitrogen.

In a diseased organ, the reverse is true. There is a tendency to a fixation of the specific gravity. The diluting-concentrating function of the kidney is lowered. Nycturia (an increased amount of urine at night) differing from pollakiuria (increased frequency) is to be regarded as one of the earliest signs of nephritis. When variations from the normal are thus found, attention is drawn to the failure of the kidney to excrete properly and a thorough search should be instituted to locate the trouble. It may be in the blood as in anemia, or a myocardial insufficiency, or a pyelitis, an obstruction as in prostatitis; the important thing is, that routine examination of kidney function will often disclose the beginnings of disease and lead to efforts to conserve renal function and limit the progress of disease as much as possible by hygienic, therapeutic and dietetic means.

Albuminuria and casts alone do not justify a diagnosis of chronic nephritis; for, beside the urinary findings, there should be evidence of a markedly increased nocturnal urinary output and a moderate increase in blood pressure. Usually there is also an increased uric acid and non-protein nitrogen content in the blood. Cases of chronic nephritis are met with showing no evidence of functional disturbance. These are not frequent.

Incontinence. Enuresis

Incontinence of urine in adults is usually due to obstruction with overflow. Incontinence in children (enuresis) is associated with adenoids, hypertrophied tonsils, phimosis, adhesions of clitoris and prepuce, with hyperacid urine, with anemia or debilitated states. The urine should be collected and examined for sugar, albumen, pus and bacteria. If pus is found, there may be stone or tuberculosis. Incontinence in women may be due to weak sphincters or may result from some pelvic lesion, displacement, pressure of fibroids or other tumor, or there may be a trigonitis due to infection from the urethra or ureters. These various conditions must be differentiated before a positive diagnosis is made. Cystoscopic examinations, in many cases, will exclude ascending or descending infections and locate the focus of trouble outside the genitourinary tract.

Enuresis is frequently due to faulty metabolism; also, deficiency of the internal secretions, as in hypothyroidism, may explain a certain number. There may be a mild cystitis due to extension of infection from the external genitals. These cases come to the general practitioner and should be diagnosed and proper treatment instituted.

Symptoms often point to the neck of the bladder, in certain cases of frequent micturition, with gradually increasing obstruction; thus, in young men, not infrequently in early youth, in the middle-aged, there may be dysuria, not marked, difficulty in starting and in stopping, with thinning of the stream; these signs being noticeable

over a number of years. In these cases, there is developed a fibrosis of the sphincter or the formation of a median bar or ring of contracture that may lead to complete retention. In the early stages, proper recognition of the condition through the cystoscope will lead to complete recovery. In later cases, operation for the removal of the fibrosed ring, by punch or excision suprapubically, is indicated and the results are usually good.

Significance of Pain

Pain in typical renal conditions is usually referred to the superior lumbar triangle, radiating to the lower abdomen, the genitalia and the thigh. Pain in this location attracts attention to the kidney and a diagnosis of renal stone, tumor, or such, is made and verified by routine urological examination. However, it frequently happens that the pain complained of is referred to other regions, such as the upper right or left abdomen, the lower right or left, deep in the pelvis, or in a testicle. Pain in the back may be associated with the abdominal pain but it may be totally absent. Pain in the right lower quadrant of the abdomen has led to a diagnosis of appendicitis or ovaritis, with removal without relief from the leading symptom. Many gall-bladders have been drained or removed owing to a diagnosis of gall-bladder disease, often associated with symptoms of gastric disturbance, with pain in the upper right abdomen, when the fault lay in the renal pelvis or ureter. Patients complaining of abdominal pain, not definitely identified by general physical examination, or of whatever obscure pains in the abdomen, with or without urinary findings, all these should be subjected to a roentgenological and urological examination of the genitourinary tract. Also, all cases of pyuria or hematuria, cases showing presence of blood or pus cells in the course of routine urine examinations, and doubtful abdominal tumors, should likewise receive thorough urological examination. Hematuria, especially that of the painless type, should be recognized as of great importance and urological examination insisted upon.

There may be association of two definite lesions at the same time. One may find a typical appendicitis and also a renal stone, or a gall-bladder involvement with renal lesions. Here, a rapidly performed and careful cystoscopic examination will assist in the diagnosis of the associated lesion.

The pain of acute renal infection is felt in the loin, associated with a tender kidney, and is due to tension upon the renal capsule. The pain of chronic infection of the kidney is that of frequent and painful urination. The frequent urination is apparently due to inflammation of the pelvis and ureter. The cystoscope will diagnose the cause. It will show that the bladder is not at fault. Pyelonephritis, stone in the pelvis or ureter, tuberculous or calculous pyelonephritis and cystitis, all give this combination of frequency and dysuria. It is evident that only complete urological examination will give a correct diagnosis.

Pain of "Rheumatism"

To the laity, pain in joints and muscles and rheumatism are synonymous. But, as physicians, we are coming more and more to realize that the cloak of rheumatism, like charity, covers a multitude of sins. Rheumatism, acute arthritis, probably one of the best examples of acute synovitis, is only one form of the infective process affecting joints. Any infective or septic disease present in the body may produce both acute and chronic inflammation of joints. To enumerate these briefly, about 70 percent are due to focal infection, the focus of infection being in the mouth, throat and nasal passages, diseased sinus, suppurating middle ear; in the genitourinary tract, in the gastrointestinal tract, in the respiratory tract; in short, any lesion, no matter how small and seemingly unimportant, or where located. About 30 percent are due to metabolic processes not properly performed, due perhaps to too much food, too much of one kind of food, to idiosyncrasy in the matter of some food products. Sepsis anywhere in the organism, such as puerperal sepsis, the chronic granulomas, syphilis and tuberculosis, and the communicable diseases, scarlet fever, measles, diphtheria, smallpox, typhoid fever, any of these may be the source of infection in joints.

In all these joint troubles, pain is the common symptom impelling the patient to ask for relief. The patient usually ascribes the pain to rheumatism and the general practitioner often permits his judgment to be forced by the dogmatic statement of the patient; the cause is given as exposure to cold, some slight trauma, when we should

remember that these are only contributing causes, the toxins from any focus of infection simply choosing this site because that portion of the body has had its vitality reduced by these agencies. It is well to bear in mind the fact that pain in a joint is not always rheumatism *per se*, and a hunt should be made for the nidus harboring the germ, wherever it may be. It should also be remembered that the teeth or the tonsils are not alone or the only seats of trouble, and the reading of the dental plates should be carefully done by an expert in X-ray interpretation. It must also be remembered that discovery and removal of one focus of infection does not always cure the focal infection located in other organs of the body and which has developed to such an extent that it needs special individual treatment for its cure. In every case, the original focus must be removed or treated first or coincident with the chief complaint.

In children, the chief source of infection lies in the tonsils, adenoids or the mucous membrane of the nose and throat, and the original focus may have been so insignificant as to pass almost unnoticed. The many joint pains and aches of children may often have their origin in some slight infection in a tonsil, and treatment directed to this point will prevent a greater involvement in joints or the myocardium.

When Genitourinary Organs are at Fault

Very frequently, it will be found that the genitourinary organs are at fault and treatment directed here will control the pain and other manifestations. A chronic urethritis, prostatitis or vesiculitis, almost forgotten by the patient, will prove to be the focus of infection. Often an undiagnosed nephritis, silent stone, tuberculosis of the kidney, discovered in a routine examination of the kidney function, solves the problem. Chronic appendicitis, gallbladder disease, a pelvic lesion, as pyosalpinx, even a leucorrhea, gonorrheal and nongonorrheal, in the child as well as in the adult woman, hemorrhoidal or other rectal and anal disease, may be disclosed as the morbid focus. Statistics show that 60 to 80 percent of males in cities acquire gonorrhea and of these about 3 percent develop joint infection. In children, arthritis often follows gonorrheal vaginitis, Gonorrhea as a cause of joint involvement must be eliminated in all arthritic patients. Syphilis and tuberculosis are frequently to blame for the production of arthritis and should be sought for in those cases not reacting to standard treatment after a reasonable length of time. In the routine examination of patients, where the physician takes blood and urine tests as important leads to a final diagnosis, many perplexing problems will be solved to the decided advantage of both patient and doctor. The X-ray in these cases will show periostitis of the joint or bone surfaces and elucidate the cause of symptoms.

The point in all this discussion is the fact that many of these cases of joint involvement are undiagnosed and, therefore, wrongly treated, because our attention has been directed only to one source of infection and, obviously, many patients will not gain that relief from pain and disability which is their due and rightfully expected by them when they apply to us for a proper diagnosis.

In Conclusion

To summarize, gonorrhea and syphilis will be treated by the general practitioner, almost perforce, the patient first applying to him and usually in the very early stages. All genitourinary disorders will probably in their incipiency present themselves to him and, unless relieved by treatment in a short time, should be referred to the urologist for complete urological examination and treatment. Diseased prostates should be referred to the specialist. All forms of obstructive lesions, all cases of hematuria immediately, pyuria usually, obscure pains, or acute renal colic, chronic cystitis, prolonged bladder irritability, should be referred for thorough diagnosis.

The internist and the urologist, the general surgeon and the urologist, should cooperate to their mutual advantage and to that of their patients. The neurologist will find many cases elucidated through the cooperation of the urologist.

A Note on the Treatment of Pruritus Ani*

By J. RAWSON PENNINGTON, M. D., F. A. C. S., Chicago, Illinois

I DO not recall that pruritus ani was one of the many ailments catalogued as trying the patience of the patriarch Job. This affliction, however, you will agree, often does try the patience of the unfortunate victims and their professional advisers; and, that, to an extreme degree.

The only aspect which I shall consider is that of treatment. Here, two classes of cases may be distinguished; (1) cases where some source of irritation can be discovered in the rectum itself or in or around the anus; and (2) those without any demonstrable cause.

Virtually every disease of the rectum may set up itching, as may lesions of the cutaneous portion of the anus or vicinity; animal and vegetal parasites; irritation produced by the clothing or by impure materials used as detergents. In some instances, there seems to be a neuralgia in the regional nerves. Obese subjects are frequently attacked.

Of late years, we are beginning to look on pain as beneficial on some occasions, attracting attention as it does to some organ or function which is out of order. In the same manner, pruritus may serve to make known a diseased condition of the lower bowel, which otherwise might escape notice.

As regards the cases belonging to class 2, pruritus may be a reflex manifestation from the male or female genitalia, or accompany severe constitutional diseases or, in some instances, follow indiscretions in diet.

No investigations, as far as I know, have been made of the nerves in pruritus ani; but microscopic examinations in other types of pruritus have revealed no structural changes. As a consequence, we are forced to rely on empirical measures.

In all my personal cases, there has been more or less infiltration and thickening of the perianal skin, regardless of the primary cause. This, in turn, is due to the deposition of inflammatory exudate and tissue of low vitality. I am of the opinion that this deposit disturbs, or aids in disturbing, the normal sense of contact between the nerve-ends in the periphery and the epidermal covering, giving rise to irritation and perverted function. Obviously, relief must come about by the elimination of this morbid exudate.

Medicinal Treatment

The multitude of measures proposed for the relief of pruritus is evidence, as in other cases where similar multitudinous remedies have been suggested, of the stubborn nature of the affection. Medical measures should be resorted to first, these usually taking the form of an ointment or lotion, as simple powders do not stay in place. Among the agents recommended have been: Phenol, menthol, salicylic acid, calomel, sodium bicarbonate, bismuth subnitrate, iodine, peroxide, chloral, chrysarobin, chloroform, silver nitrate, tar, zinc stearate, camphor, ichthyol, balsam-of-Peru. For vehicles, glycerin, lanolin, benzoated lard, vaseline and tallow are suitable.

When there are few or no objective symptoms, I find that painting the region with a 2- to 5-percent solution of chrysarobin in traumaticin, once in three to five days, and applying the ointment given in the next paragraph, night and morning during the interim, is one of the best modes of treatment. The application sometimes gives rise to considerable pain for a few moments, especially if there are cracks and abrasions; but, this soon subsides. When the surface is dry, after application, I take a thin layer of cotton, sprinkle it with talcum or some other powder and place over the field to prevent staining of the underclothing.

The formula referred to just now is as follows:

Menthol ..... 3 to 4 grs.
Phenol ..... 8 to 12 min.
Zinc oxide ointment
Vaseline or tallow āā..... 2 drs.
M. et. ft. unguentum.
Sig. Apply locally night and morning

*Read before the American Association of Railway Surgeons, Chicago, October 6 to 8, 1920.

after cleansing the field with warm water and drying.

Other agents may be added if they seem indicated, such as camphor, salicylic acid, calomel.

If the skin is dry, hard or cracked and seems in need of nourishment, another ointment can be used; this is made up of:

Sodium bicarb.	5 grs.
Bismuth subnit.	20 grs.
Glycerin	10 mins.
Tallow Lard or Lanolin āā	2 drs.

Sig. Hot ablutions night and morning, then apply ointment after drying thoroughly.

To make this ointment, first mix the sodium, bismuth, and glycerine, and let them stand for a few hours or overnight; then add the other ingredients. (I am aware of the incompatibility in this combination.) If the itching is intense add phenol, in the proportion of 8 to 10 minims.

Should the skin be thick and parchment-like, and if it be thought desirable to cause desquamation in part, shave the affected area, then paint with tincture of iodine, chloral and phenol (equal parts), repeating as soon as dry; a third application may be made. In a few days much of the scarf-skin will have been peeled off. While this application often sets up a good deal of pain, the local measures will be much more effectual.

Another, and perhaps a better, way to remove this hard cuticle is by use of the actual cautery. The hot iron is brought near but not in actual contact with the skin and held in this position long enough to produce a distinct dermatitis. Then dress with tallow, lard and bismuth, equal parts, or bismuth subnitrate one part and vaseline two parts; repeating daily.

I have often had splendid results by painting the area about every three or four days with a coat or two of the tincture of iodine; when dry, mopping with a 3- to 5-per cent solution of silver nitrate. In the intervals, apply the ointment of the first formula.

Bathing the parts in very hot water, for five to fifteen minutes before retiring, often gives a good night's rest. The effect may be enhanced by applying some powder such as, talcum or stearate of zinc, after drying; but, as these are apt to flake off, it may be better to anoint with 5 parts of glycerine to 95 of tallow. This bathing should be proceeded with cautiously as some subjects do not stand water well when suffering from lesions of the skin.

Vaccine treatment has been essayed, but the reported results are conflicting. My own were by no means encouraging.

Several years ago, I reported a series of 13 cases, some of 6 and 7 years' duration, all treated successfully with the x-ray alone. There is no reason, though, why other measures should not be associated. There was no dermatitis or other effects following; in fact, the skin was left clean and smooth, soft and pliable, though the hair was removed in all. The x-ray outfit is so cumbersome in the small space in Chicago offices, that I have not used this means much since. Still, I believe it to be of undoubted value in selected cases.

Surgical Treatment

Local measures are often successful; yet, they fail equally as often and, if no improvement follows in a reasonable time—say a month or so—more energetic measures are called for. Surgical measures consist of Ball's operation and its modifications. A semicircular incision is made on each side of the anal opening, leaving an isthmus of skin intact at the anterior and posterior commissures. These incisions are now deepened as far as the sphincter muscle, the flaps dissected up with scissors, all connection with the subcutaneous tissue being severed, including, of course, the nerves. The skin isthmuses are undercut, as is the outer, or concave, edge of each incision for at least ¼ inch. After arresting the bleeding, the flaps are replaced and sutured.

I have modified this plan by stuffing the incisions with iodoform gauze or rubber tissue, leaving the flaps unsutured.

As the result of considerable experience, it seems to me that, in pruritus, vaseline is not a good vehicle for ointments. It is a mineral, hence, a nonabsorbable product. In many of these patients, the skin is anemic and needs to be nourished; therefore, animal fats such as lard, lanolin and more especially tallow, are to be preferred. This is the principal thought I would like to leave with you.

What Others are Doing

LABORATORY VS. CLINIC

For many years, the medical profession and a vast majority of the laity have believed that, by means of external applications, pains might be relieved, although there have been some ultrascientific persons who have laughed at this proposition and have claimed that, when belladonna or opium or other pain-relieving drugs are applied to the skin, the relief comes from the imagination of the patient and not because the drug produces a direct effect.

Recently, Macht has published a number of interesting papers on what he calls psychopharmacology. This term might be used to indicate the effect produced upon the mind by the administration of drugs. However, this is not exactly the meaning intended by Macht, who really means the influence of drugs upon the brain as to its intellectual and sensory functions. He points out that the very general use of opium preparations in lotions, plasters, ointments, suppositories, would indicate that physicians believe that such local applications are efficient. While he recognizes, as we do, that this view has been criticised, he nevertheless has performed experiments which prove that those who have employed such applications have not gotten results due to their imagination, but that the drug has been actually absorbed; or, to use his words, it is evident that opium, although preeminently a central nervous agent, does act to some extent upon peripheral structures such as sensory nerve endings, and that the empirical observations of the older clinicians who advocated local applications of opiates for the relief of pain are not without foundation.—[*Therapeutic Gazette*, Nov. 1920.]

LOCAL ANESTHETICS COMPARED

Sollman, in the current "Year-Book of Anesthesia and Analgesia," finds procaine (novocaine) and cocaine and equally as efficient for injection intracutaneously. Beta-eucaine is only one-half as efficient; quinine-urea one-fourth; and apothesin one-eighth.

For intraneural injection also, procaine and cocaine are equally as obtundent.

The showing is interesting so far as it goes. But, further comparison may well be made. For instance, in considering the two most efficient local anesthetics named, one must know that procaine is only about one-seventh as toxic as cocaine. It is therefore safer. Also, it is less irritating. That is why careful operators prefer it. As between the two, nobody mindful of the mishaps chargeable to cocaine will hesitate a minute in choosing.

Sollman says that the addition of sodium bicarbonate serves no useful purpose in injection (infiltration) anesthesia. In surface anesthesia, though, its value is unquestioned. For such use, the anesthetic procaine should be made up in double concentration and diluted, just before using, with an equal volume of 0.5-percent sodium bicarbonate. This increases its efficiency (for the cornea) from one to two times.

As to the advantage contributed by epinephrin, he sees none at all for surface anesthesia, although conceding an advantage gained for infiltration anesthesia. It is notably effective for this purpose.

BENZYL BENZOATE IN ANGINA

Since some have questioned the value of benzyl benzoate in angina pectoris, it is interesting to read what Spach (*Ill. Med. Jour.*, Jan. 1921) has to say about it. He found the drug quite satisfactory. Several cases are reported in which the attack was ended with 25-drop doses of a 20-percent solution, given every four hours. In two cases of pylorospasm, complete relief was obtained from its use.

In angina, it is highly probable that the drug acts directly, with a sedative and antispasmodic effect upon the coronary arteries. The tonus of the cardiac musculature is improved. Compared to the nitrites, its ac-

tion is somewhat slower though more prolonged and more complete. The action of the nitrites is rapid and the effect passes off much more rapidly. Also, they are not well borne in low-pressure cases; indeed, in such cases, the nitrites may be dangerous. Not so with the benzoate from which the investigator noted no deleterious effect. On the contrary, a feeling of buoyancy or exhilaration attends its use.

This is significant. inasmuch as Macht was once asked if benzyl benzoate might not lower the arterial pressure . Such fear was not excited in Spach's experience although, of course, further observations will have to be made before we may feel sure as to this. In the two cases of pylorospasm, mistaken for angina by others, no lowering of pressure was noted, the blood pressure being about normal in these cases; from which it apears that the drug does not depress the blood tension when it is already low or normal.

MENSTRUAL TROUBLE IN YOUNG GIRLS

After studying a large series of cases, Meredith concludes (*Surg. Gyn. and Obst.* Oct. 1920) that much can be done by mental therapy calculated to correct the general notion that menstruation is necessarily fraught with pain and distress. Trouble is expected at the periods and awaited with dread. The superstitition, that even a tepid sponge bath just prior or during the period is sure to be disastrous, finds harbor in the average girl. This attitude of mind is bad and needs to be corrected.

Further, to improve the general health, the girl should be enjoined to engage in some form of activity, especially out of doors, that is, if she is what is called a "house flower," reading much, and lolling lazily about, as many are wont to do who are amply provided for and without occupation.

In but 3 percent of all the cases examined was the trouble found to be other than purely functional, while some of the exceptions showed nothing more serious than relaxed ligaments with slight uterine malposition, and about 2 percent such definite lesions as made it necessary to refer them for gynecological treatment. However, nearly 98 percent of the total responded nicely to hygienic measures which included the breaking up of old invalid and other unfavorable habits.

About half of the girls were affected with constipation which was instrumental in bringing on congestion within the pelvis. To help correct this, exercises were employed which brought renewed strength to the relaxed abdominal muscles. The long, binding corset, it seems, must logically be abandoned; not only does it compress the internal organs unduly but it induces and encourages muscular relaxation in the wearer.

When office treatment is needed, pelvic depletion by means of glycerin suppositories, through osmosis, will usually expedite matters. Such treatment is logical and useful in nearly all cases where congestion is obvious.

REPORT ON ACRIFLAVINE

As a gonococcicide, this new agent has the property of penetrating power. A solution, injected into the bladder of a dog, was found to have penetrated to the muscular layer within ten minutes. Then, too, it is exceedingly powerful; being about 600 times stronger than protargol, according to published findings.

Its value in chronic gonorrhea may be inferred from the report of Rosen (*Jour. Mich. State Med. Soc.*, April 1920) who used it in more than a hundred cases. In 61 percent of the cases. the discharge was controlled in from one to six days. He gives deep injections in most cases, using from 15 to 25 mils (Cc.) of a 1:1000 solution. The portion in the urethra was retained for ten minutes; that in the bladder was held till the next voiding. Injections are given twice a day.

Some of the patients complained of smarting after the fifth treatment. For this reason, the author concludes that a 1:2000 solution is the best strength to begin in any case; this may be increased as the urethra becomes accustomed to the drug.

In bubotomy, for flushing the cavity and as a wet packing, a 1:1000 solution gives excellent results. The case should be treated daily. After the second treatment, the wound will usually be found free from pus.

So, too, in chancroids; only 1 percent of the cases treated failed to respond. The agent, we are told, acted in this connec-

tion almost as a specific, the pus disappearing and granulations forming within twenty-four to forty-eight hours. The lesions reported were first cleansed and then a cotton pledget soaked in a 1:1000 solution was applied, and the affected part being mopped with gauze. The dressings were changed three or four times a day.

The reference to the nontoxicity of acriflavine is interesting; as much as 2 ounces of a 1-percent solution has been injected into the bladder, and 2-grain doses given by mouth, without mishap.

PHENOIODINE

A compound of iodine and phenol has been used for six or more years by Husik (*New York Med. Jour.*, Jan. 15, 1921) in the treatment of general sepsis in the course of pneumonia, wound infection and erysipelas. He gives it intravenously, usually in doses of 5 mils. (Cc.), repeated at six hour intervals. Five cases are reported, in which the pneumonic infection was overcome by its use. In an experience involving nearly four thousand cases, no untoward effects were noted, either local or general.

In the same publication is a paper, by Grad, which is quite in accordance with the foregoing. He affirms that the effect of the solution in postoperative pneumonia is definite and pronounced without exception, and recommends its use in all such cases. In two cases of infarct pneumonia, empyema developed in spite of it, necessitating rib resection, but the cough, pain and respiratory distress were symptomatically relieved; and the patients recovered. A few doses, he says, will usually turn a very alarming condition into a safe clinical course.

In a case of erysipelas, injections brought the disease under control within forty-eight hours, the lymphangitis, skin tumefaction and pain steadily subsiding after the first few doses. Two large abscesses developed at the site of injection in one case; but in this and eight other cases the disease itself was favorably influenced and all the patients recovered.

ACRIFLAVINE AS AN IRRIGANT IN GONORRHEA

Mann (*Med. Record*, Jan. 22, 1921) agrees that acriflavine has exceptional penetrating power. He uses it as an irrigant. A 1:4000 solution is absolutely bland; it causes neither smarting nor burning nor dysuria, even when used every day for months at a stretch.

The technic worked out by Watson is followed. The germicide is dissolved in physiological saline . Solutions should be warmed to body temperature before being used. For convenience, the doctor makes up a 1:1500 stock solution, to each 2 ounces of which 1 dram of sodium chloride has been added. (A more concentrated solution will "salt out.") For each case, 2 ounces of this stock fluid is diluted up to 1 pint with warm water; which makes a 1:4000 solution.

In acute anterior infection, the anterior urethra is irrigated with 1 pint of this solution, some of which should be retained for ten minutes. This is done once daily. A painful swollen meatus and canal need not prevent, as the solution is unirritating. No injections are provided for the patient to use; he is only advised to drink a dozen glasses or so of water each day.

In posterior infections, intravesical irrigations are used daily and the prostate massaged upon a full (injected) bladder twice weekly. Only epididymitis need postpone this treatment.

After treating thirty-six cases, the doctor concludes that acriflavine is more than ordinarily satisfactory and that, as an irrigant in gonorrhea, it is the best remedy available.

ANTISEPTICS AS THE CAUSE OF SKIN LESIONS

Surgeons who use antiseptic soaps and lotions, says Ravitche (*Ky. Med. Journ.*, Dec. 1920) quite often produce severe dermatitis of the hands and forearm. He has observed cases of eczema and cellulitis following even a single application of a strong antiseptic, such as iodine, prior to surgical operations.

The application of iodine to small wounds for the period of a week has more than once destroyed the adjacent epithelium in the experience of the writer, and set up a traumatic eczema. Further, we are reminded that surgeons and nurses, who have to use antiseptic solutions often in the course of a day or week or month, not uncommonly develop dermatitis of the hands or

show a persistent urticaria from irritation. Even strong peroxide of hydrogen is said to bring on such mishaps.

Observations of this sort have been prejudicial to antiseptics in general, and led to the advocacy of mere water and soap in the treatment of wounds, leaving the fate of the patient to nature, for the rest. In truth, however, there are antiseptics and antiseptics just as there are sailors and sailors Iodine and bichloride, as germicides, long ago have gone to the discard. We now have the water-soluble chloramine, for example, which, while many times more effective than all prior agents, is absolved from their harshness. If any irritation follows, it is because it is used in unnecessarily strong solutions, unmindful of the fact that a little goes a long way; a 0.5-percent chloramine solution is at least equal to 5-percent solution of phenol.

Recently, a soap powder carrying this high-power germicide was put out by a leading pharmaceutical house in Chicago. Far from being "hard on the hands" to the extent lamented by Ravitche, it does not appear even to roughen them. (Of course, frequent washings with hot water, especially in winter, render the skin sensitive to cold and liable to chapping. Still, no soap should be blamed for that, least of all this one which is alkali-free.) It serves nicely for cleansing the skin previous to puncture or incision; also, for removing grime and foreign particles from small wounds.

WHEN TO BLAME THE THYROID

Just now, the ductless glands, among them the thyroid, are being shouldered with many grievances, whether rightly or wrongly.

For example, we find constipation attributed by Strauss (*N. Y. Med Jour.*, Feb. 14, 1920) to thyroid deficiency. To patients in whom this glandular fault is apparent, he gives 1/10 grain of the desiccated extract, on an empty stomach, either in the morning on awakening or on retiring at night. If no effect on the bowel function is observed in a few weeks, this dose is increased, up to ½ grain when necessary. No dietary restrictions are imposed on the patient but cathartic drugs are interdicted.

Needless to say, not all cases of constipation are amenable to such treatment; only those showing the recognized signs of thyroid dystrophy. The clinical picture of a patient so affected, as drawn by Strauss, is most interesting in a general way, since it indicates when, in other disease conditions, the thyroid may be at fault. They may be tabulated as follows:

The hair; coarse, lustreless, tends to come out.

The teeth; large, soft, easily become carious, of yellowish cast.

The eyes; eyebrows sparse, puffiness of upper lids, often sunken, dull.

The skin; dry, seldom perspires, scales readily, tendency to small warts, finger ends often cyanosed, nails brittle.

The skeleton; crackling noises on motion of small joints.

The mouth; lips tend to dryness and cracking, tongue thick with imprints of the teeth, tonsils usually enlarged.

The nose; proneness to rhinitis, with crust formation.

The mentality; dull, generally moody, difficult to concentrate, forgetful, brain fag, requires much sleep.

The urine; polyuria, indican frequently excessive, enuresis.

The circulation; heart-beat slow, with rate around sixty; extremities cold, skin reactions sluggish, temperature usually subnormal.

The digestive function; sweets often craved, tasteless eructations after meals, meteorism, tendency to gain weight, sleepy after meals.

Let's Talk it Over

Medical Economics

Compulsory Health Insurance, State Medicine and Similar Legislation as It Affects the Medical, Dental and Druggist Professions

ON February 23, there was held, under the auspices of the Chicago Medical Society, a get-together meeting in which participated the Chicago Medical Society, the Chicago Dental Society and the Chicago Retail Druggists Association. This meeting had been called for the purpose of impressing physicians, dentists and druggists with the danger inherent in proposed legislation claimed to be for the benefit of the working classes of small incomes, and through which the services of the medical and allied professions should be made available under circumstances that would actually enslave these healing professions and make it impossible for their members to earn even moderate returns for their work. In addition, the proposed legislation is inherently so bad, so undemocratic and so un-American that it can not even be characterized as truly social (perhaps for the reason that it is "socialistic"); therefore, concerted effort is required to prevent it from being passed in order to ward off evil consequences, such as have been experienced for years in Germany and in England. In the following, we present a report of the meeting in question for the information of our readers.

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Dr. John J. A. O'Reilly, Brooklyn, N. Y., discussed the question under consideration in detail, giving the history and results of Health Insurance since its adoption in other countries, and telling of the efforts to establish it in the State of New York and various other places, by the American Association for Labor Legislation. He pointed out that State Medicine is Compulsory Health Insurance and "then some". It provides for a large and prolific political machine, with a State Superintendent of Health at the head, the system passing out through Boards of Selectmen, Common Councils and Boards of Supervisors, in towns and small cities, and Boards of Estimate and Apportionment, in cities of the first class. These political bodies shall have the power to contract, and levy taxes to pay, for land, buildings, equipment and supplies of all kinds, and of contracting with and discharging lay and medical employees of all kinds. These Health Centers will have clinics for everything, from baldness to bunions and everything between; including the specialties of medicine, surgery and dentistry, and there will be periodic physical examinations, to "Fisherize," or standardize, the cattle-ized, card-indexed units and brood-wives that are now regarded as free American men and women: the State contributing part and absorbing control, the municipality contributing part, but the *taxpayer paying all.* Outside doctors may, if panelized, at the election of a patient practice in any Health Center Hospital or institution embraced by the scheme, and that means every hospital; because, if any hospital refuses to go into the scheme, those political bodies have the power to erect and maintain a rival institution on the next corner. Under the ruling decision in the Case of the Fertilizer Co., vs. Hyde Park, (97 U. S. Reports, p. 659), which modifies the ruling in the Dartmouth College Case, it makes a Charter not a Contract but a License and subject to the police power of the State; so, a hospital charter is "a scrap of paper", valuable for decorative purposes only, the license of a doctor also being subject to the police power of the State.

Dr. O'Reilly said that, when the power for evil residing in a Medical Practice Act

seeps into your consciousness, you will be a bad doctor and a worse citizen if you do not get out and hustle and do your bit to encourage the "Paul Reveres" who are trying to awaken the professions to a sense of their civic responsibility and the power of their medical citizenship, not only to insure the defeat of the Medical Practice (re-registration) Act and the miscalled welfare measures of which it is the complement, but to bring about the rebuke, or repudiation, of the misguided or vicious leaders of medicine in County, State and National Societies who, by "cooperationism" and compromise attempt to betray you and the people you serve into the hands of the forces of unrest, of which the un-American Association for Labor Legislation is the Familiar.

The best medicine in the world is, *knowledge of the facts.* It is our duty to prescribe and administer it in our offices and in the homes; on the street, in public halls and in the lay press as well as medical journals; as an integral part of every medical, dental and pharmaceutical society meeting, wherever an opportunity presents or exigency suggests. We cannot *teach* unless we learn. However much we know, it will be useless unless our Campaign of Education is organized; that campaign, to be effective, must bring the facts to the people by way of the spoken and printed word and, all that means the expenditure of time, money and energy. Teamwork must be the order of the day. The practitioner, unattached to a scientific society, controls just as many votes at election time as the President of the A. M. A., or more. This is not a political pastime but a sacred civic duty which the profession dare not evade.

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In Dr. O'Reilly's own County, a group of five men went about among the medical, dental and pharmaceutical societies and induced them to form an embryonic Professional Guild of Kings County (N. Y.). Then, as Chairman, Dr. O'Reilly invited the doctors, dentists and druggists in their respective assembly districts, as medical citizens, to meet him and organize Assembly District Chapters of the Professional Guild. Sometimes, the initial response was encouraging; sometimes, it was not. But, small or large, the group sent out information of the menace of Compulsory Health Insurance and Medical Practice (re-registration) Acts and, at the subsequent meetings, either Dr. O'Reilly or one of the four workers on his committee would continue the instructions, so that the medical citizens became missionaries among their people. Then, the Chapters would arrange public meetings and speakers would be furnished to help out the local talent. The meetings to organize the Guild were held in the Medical Society building and the organization meetings of the Chapters and their own regular meetings were held, without expense, in the headquarters of the Democratic and Republican parties, alternately. The Scientific and Civic Units were blended into the Guild proper through a House of Delegates, one for every fifty "dues-paid members", and the organization operated through a Board of Directors of twenty-three members with the necessary Committees.

The doctors, dentists and druggists, and nurses, were supplied with the facts of the campaign in pamphlet form, with charts, snappy cards and newspaper stories. All these cost money, a little from the humble and more from those whose position suggested and whose pockets afforded generosity, until the dues began to come in and they were functioning. It was inspiring to see how the medical citizens took hold. They succeeded in getting slides reading "What do you know about Compulsory Health Insurance? Ask your Doctor, Dentist and Druggist — T H E Y KNOW!" into many moving p i c t u r e houses, replaced their magazines in their waiting rooms with copies of "The Menace of Compulsory Health Insurance" and similar literature, and every suggestion of value was relayed to the twenty-three Chapters. At the end of ninety-two days of a Campaign of Education, it was conceded by the leaders of both political parties that the power of medical citizenship was not a theory but an institution.

In 1919, Dr. O'Reilly and four others, speaking for the sixty-two counties in the State, attended the "pro forma" hearing on the Davenport Compulsory Health Insurance Bill, and it died in Committee; the M e d i c a l Practice (re-registration) Act was killed on the floor of the Assembly; a well financed lobby got the Chiropractic Bill through the Legislature, but the Governor killed it with his veto. Drugless

Therapy was "drugged" to death, and when the Legislative Session was at an end, they gathered up thirteen out of thirteen bad public-health bills and threw them in the scrap heap. They had taken the stand that "Compulsory Health Insurance was as incapable of 'constructive amendment' as is a rotten egg, so the People 'constructively amended' the Legislature." Their action imposes a debt which must be paid by directing attention to a real solution of the sickness problem—seeing to it that, through constructive legislation and more efficient and expansive administration of our hospitals, laboratories and dispensaries, the advancement of medical science may be brought closer to the sick citizens of moderate means, and that they may profit by the more rapid restoration to health; that their freely chosen physicians may profit by a broader grasp of the patient's condition, and the State benefit by the prompt return of the individual to economic usefulness.

Dr. O'Reilly made the special plea that we shall all exercise our faculties, not for expediency, but with a view to erecting substantial institutions for those who follow us, as did the men and women who built for us in those troublous times when this glorious Nation was brought into being.

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From the Standpoint of the Druggists.—Mr. S. C. Henry, Secretary, National Association of Retail Druggists, speaking for the pharmacists of the United States, endorsed every word that Dr. O'Reilly had said and stated that, in many years of legislative experience, he had never had to combat any legislative proposition which in his opinion was so iniquitous and fraught with so much danger, not only to the professions but to the great masses of common people, as is the Compulsory Health Insurance proposition. They come with a proposition which proposes to do something for the laboring people, but down in their hearts they know that the whole plan and purpose is, to do something for the people who are proposing the measure, and to set up a machine which can be used for their own selfish purposes. It is ridiculous to imagine that any State could demand of a business man that he turn over to the State, for the purpose of insuring his employes, a certain amount of money and expect him to get that money from anywhere in the wide world but out of his business; and, while it is true that an employer is called upon to pay forty percent of the amount plus his share of the tax which will be levied to pay the State's portion, it is equally true that that amount will come from the people. Secondly, that amount goes right back to the persons in whose interest the plan is proposed and, unfortunately, only a small percentage of it finds its way back to the one who is supposed to be protected by this splendid scheme which has been worked out by these social reformers. If Compulsory Health Insurance is adopted in any of the States or in the Nation, and carried out along the lines upon which it is planned, it means the absolute elimination of seventy-five percent of the legitimate pharmaceutical business carried on by the pharmacists of the United States. The very proposal of such a scheme is a crime and an outrage upon the good name of the American laboring man. In the very beginning of Compulsory Health Legislation, the laboring man, as such, was for a time fooled by the proposition, and it might be said with equal emphasis that the medical profession was to a certain extent misled by it; but, in many lines, the laboring man has now been led to see the falsity of the proposition, and Mr. Henry was very glad to know that the medical profession is so solidly against it. The pharmacists of the country have been from the very beginning absolutely opposed to it. Still, unless the full significance of the situation which is directly before us is grasped, and we see to it that the public is informed truthfully and accurately as to the workings of such a law, not much can be accomplished.

Mr. Henry stated that we have forty-two states with the legislatures in session at the present time. His office is kept constantly informed regarding the various bills which are being introduced, and he was certain that there is a determined and well organized effort to put across this legislation in many of the States. The one thing we have to guard is, the adoption of such a measure in any of the States, because, if it is once permitted, it will work its way into the other States regardless of anything we may do to prevent it. He urged that, before the meeting adjourned, some decided stand should be taken and some measure adopted for carrying this matter to the people of the State; that they

organize in some way that would get into the newsapers of the city and other parts of the State the information which the people should have regarding the iniquitous nature of the proposal. As citizens, we frequently fall far short of our duty in that we will not sufficiently interest ourselves to see that the people are properly informed regarding those things which so directly affect us as this proposition does. We are all too likely to allow the work to be done by someone else—we are all too likely to trust somewhat to luck that these things will not occur. We have to get away from the idea that it does not look right for us to be trying to educate the people, and we have to get a little more grit and get out and fight this bill—not only for our own protection, (although that would be enough in itself), but in the knowledge that in protecting our own interests, we are also upholding the rights of the people of the country as a whole.

The speaker hoped that out of the meeting would come some sort of an organization and cooperation of the forces there assembled that would take hold of this thing and see it through, and not give up the battle until it is absolutely won. If this were done, we of Illinois would have nothing to fear from the present legislature.

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From the Standpoint of the Dentists.—Dr. Don M. Gallie was much impressed with Dr. O'Reilly's presentation and thought all possible steps should be taken to combat this bill when it was presented to the legislature. It professed to be for the benefit of the "poor working man," but everyone who had read anything on the subject knew that the laboring men are against it and did not wish to be classified with the poor and poverty stricken of Europe. Dr. O'Reilly had asked the speaker what he thought would be a fair price for filling a tooth, and when he gave him an average price of $3.00 for such work he was to'd that, under the proposed legislation, the price would be *thirty-nine cents.* It was easy to see what the condition of the mouths would be as regards foci of infection under such a proposition. In Germany, physicians are now receiving three and five cents for office calls and fifteen cents for house calls. Everyone knew that the system has not been a success in Germany or Austria and that it is a gigantic failure in Britain. Those who had studied the matter were convinced that it would be even a greater failure here. Dr. Gallie was sure that none of the professions could be in sympathy with the movement and that as many as possible should know about the provisions of the bill and make every effort to fight it.

As a member of the Illinois State Dental Association and the National Dental Association, with its 30,000 members, he felt that he could pledge the support of these organizations to combat the measure. He urged that some concrete movement be started so that the different organizations could get busy at once, and felt sure that with the influence which the family physician has, and which the dentist has, among their patients, and with the close association between the corner druggist and the people of his neighborhood, it will not be difficult to convince the people and the legislators that it is a bad bill.

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Dr. O'Reilly said that, when he started to study Health Insurance, the milk of human kindness had not yet curdled and he actually had a tender spot in his heart for these "uplifters," thinking that perhaps he had been mistaken in his idea of what they were trying to accomplish. But, when he started to analyze their propaganda, he soon realized its viciousness. It is for those, who know, to warn and for the People to decide whether there shall be taken from the American Workingman not less than 13 6-10 cents of every dollar he earns to provide funds for the creation of a huge political machine, for the collection, distribution and absorption, in Illinois for instance, of $195,639,480.00 per annum, of which only 47.46 percent (less than one-half) returns to the workingman as cash, maternity and funeral benefits and health service and supplies, while 50 percent ($97,819,740.00) is taken away from his possession and control, ostensibly as "Reserve and Guaranty" but, under cleverly phrased sections of the Bill, *is actually made available for the creation of an army of Social Surveyors, Lectures, Field Inspectors Sob-Statisticians and so on,* for the dissemination of what those worthies may choose to regard as preventive medicine, of which birth control will not be the least.

It is for those, who know, to warn and for the People to decide, from the simple

rules of addition, subtraction, multiplication and division, and simple proportion, applied to the $24.96 propaganda premium for the "Average man," how it would be possible to furnish the statutory cash, maternity and funeral benefits of $11.06, put aside as reserve and guaranty $12.48, in accordance with the General Insurance Law requirements, and with the rest, residue and remainder of $1.42 pay an irreducible-minimum administration expense of $1.91, and also pay the mean average cost per person per year for health service and supplies ($24.74) for the sickness year of the "average man" which, the statisicians say, is nine days. *It simply cannot be done.* A conservative economic premium which would meet the necessitous expense of this proposed measure would be *not less than* $75.42 per "average man" per year, or 13 6-10 cents of every dollar earned. It should be borne in mind and impressed upon the people that, whether the average allocation per person per year for health service and supplies is maintained at the proposed mean of $24.74, or raised to the alluring bait-point of $2.50 per visit, *there would still remain the political domination of all the agencies of healing, the destruction of professional morale, the abolition of free choice of physician,* the substitution of quantity medicine for quality medicine, of time service for heart service, the conversion of the sick citizen into a *thing* and his doctor into an impersonalized cog in a huge political machine, or into a man without a profession if he should refuse to submit to panelization.

What are the people going to do if they tolerate this thing? If the law is once written into the books, they are prepared to jump the premium to the minimum economic point of $75.42, or to send along the deficit to the taxpayer—the goat. It should be borne in mind that, in the State of Illinois with its 2,594,000 estimated workingmen, that deficit will be over $130,000,000.00 per year to be made up to save the State of Illinois from dishonor! The inevitability of this deficit has been recognized and provided for by Section 11 of Article 2 of every Compulsory Health Insurance bill that has ever been presented to a Legislature in any State in the Union. There is not a tiny little word about where this deficit is coming from, but a wide open door for a Deficit Bill every year to save the State from dishonor.

If this Bill becomes a law, the doctors and dentists must fall into line or they will be deprived of their right to practice. The medical societies will determine which doctor will serve and where he shall serve, instead of "wasting time in scientific business," under the terms of the Medical Practice Act, which is sure to be brought up—nobody knows just when.

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In reply to a question from Dr. Hayden as to just what form of action should be adopted in Chicago, Dr. O'Reilly outlined about the same plan that was followed by him and his Committee in New York and felt sure that good results would be obtained. He stated that, if any questions arose in which he could be of service to the Committee, he would be entirely at its service. He explained the "chain system" which was carried out by them in sending letters and telephone messages to the people they wished to reach and said that it worked very well.

Dr. Austin A. Hayden moved that the representatives of the Chicago Retail Druggists Association, the Chicago Dental Society and the Chicago Medical Society go on record as being unalterably opposed to State Medicine, Compulsory Health Insurance, or Public Health Centers in any form. Seconded and unanimously carried.

Dr. E. H. Ochsner, the Chairman, stated that one of the purposes of the meeting was, that this beginning of a closer cooperation between the dentists, the druggists and the doctors should be perpetuated, and asked for a motion to this effect.

Dr. A. A. Hayden said that, in view of the splendid efforts that had been put forth by the Committee to get the representative assemblage together, and in view of the important communication Dr. O'Reilly had presented, he moved that the representatives on the Committee of the Chicago Medical Society, the Chicago Dental Society and the Chicago Retail Druggists Association, take whatever steps are necessary, with the advice of the Chicago Bar Association if desired, to perpetuate this association of interests between these three professions, and that the Illinois State Nurses Association be invited to cooperate.

Dr. Benj. H. Breakstone offered an amendment to include a representative of

the Illinois Hospital Association. Dr. Hayden accepted the amendment. The motion was put to a vote and carried.

Dr. Geo. L. Apfelbach moved that the Retail Druggists Association, the Chicago Dental Society and the Chicago Medical Society, extend a vote of thanks to Dr. O'Reilly and the other speakers of the evening for their courtesy in coming to address them. Carried unanimously by a rising vote.

WHO WILL NURSE OUR SICK?

Dr. John Dill Robertson is about as energetic a health commissioner and as much alive as it is well possible for a health commissioner to be. During his time of office, he has succeeded, through his unwearying efforts, to have public-health regulations obeyed strictly, to reduce the morbidity of infectious diseases and also their mortality by very considerable percentages. Many of the Health Commissioner's demands for the cooperation of physicians may be irksome at times; and individually, no doubt, many physicians, shrug their shoulders and use language, occasionally. However, as citizens and as members of the medical profession, we must feel constrained to congratulate Doctor Robertson for what he has actually accomplished and to commend him for his energetic activities, for the establishment of better health conditions in the city of Chicago.

While these activities just referred to are of exceedingly great importance, we believe that Doctor Robertson's name and fame will live, not because of them but rather on account of the Home Nurses' Training School and the Home Nurses' Hospital, both of which he had the courage and the foresight to inaugurate and establish successfully. It required a good deal of optimistic imagination to buck against the accepted views that nobody was fit to nurse the sick according to Hoyle, unless they had received two or three years' training in a regular nurses' training school; unless they were qualified to be admitted to such training by having at least one or two years of highschool to their credit; and, further, unless they had authority to write the magic letters R. N. (Registered Nurse) after their names.

Nevertheless, Doctor Robertson argued that the great bulk of nursing, especially home nursing, required mainly the abilities of a good housekeeper for the sick. "It is the nurse's duty to bathe the patient and keep his bed free from wrinkles; to prepare his food according to the doctor's directions, and serve it to him; to take his temperature, pulse and respiration; to keep his record sheets; to carry his bedpan; to administer his medicine. Occasionally, she must give a douche, or remove a dressing, or apply a dressing. In a critical case, she must know what symptoms make it imperative that she summon the doctor. And she must know when to let the patient alone—the greatest fault of the amateur nurse is, that she worries the patient by her attempts to keep herself busy all the time."

In point of fact, all these tasks can be attended to readily by any woman of even average intelligence, providing that she be endowed with ample good will and the desire to benefit her charge. Indeed, in the hospitals that have training schools connected with them, all this work is carried out by the pupil nurses who have not yet had any training or who are in course of training.

It is only relatively infrequently that cases of medical or even of surgical disease require the attendance of highly-trained graduate nurses.

Reasoning from these premises, and, further, in view of the fact that the number of trained graduate nurses available was altogether inadequate even for ordinary requirements, not to speak of the additional calls necessitated through the war, through the two influenza epidemics and through similar emergencies — Doctor Robertson concluded that it must be possible to give women with but common-school education a course of training that would suffice to enable them to attend to the necessary home nursing in their own families, and also to serve as socalled practical nurses. The important point was, as Doctor Robertson expresses succinctly, that such practical nurses would learn, first of all, strict obedience to the directions of the attending physician and, second, strict observation of cleanliness as it is understood by physicians and by surgeons.

Consequently, Doctor Robertson was instrumental in organizing the Chicago School for Home and Public Health Nursing which he considers in relation to the

regular nurses' training schools as comparable to Plattsburg in relation of West Point. He says that regular registered nurses felt toward this school about the same way the West Point men felt toward Plattsburg. However, the second influenza epidemic has shown the quality of the eight-weeks' graduates of the Chicago School for Home and Public Health Nursing just as the great war showed the quality of the Plattsburg men.

Having made careful and ample provisions for an efficient teaching body, the school was opened in the fall of 1918-19. Of twelve hundred women attending the opening lecture, eight hundred enrolled for the eight weeks' course and finished it. Contrary to expectations of a somewhat smaller enrollment for the second course, sixteen hundred women were determined to attend the second term. This made things rather difficult because only one thousand could be accommodated readily, while a class of eight hundred gave the best opportunities for effective teaching.

Each class meets three days a week, for two hours each session. One-half of each period is devoted to a lecture, the other half to nursing demonstrations. Doctor Robertson says that, in all his association with medical schools and nurses' training schools, he has never seen a body of people more anxious to learn than these women. As to the women who attended, there are some who have graduated from well-known universities sitting side by side with women who can barely write. Wives of physicians and other professional men sit beside wives of teamsters and janitors. Truly, it is a training school not only for nurses but for democracy as well.

About eight percent of the women enrolled have been over fifty years of age. About the same percent under twenty. The great majority of them ranged in age from twenty-five to forty. More than half of those who took the course were widowed or married. That means that more than half knew how to cook, how to sew, how to do all the multitudinous things that go to make up housekeeping. Given the fundamentals of nursing, Doctor Robertson says, these women should at least equal the hospital-trained inexperienced girls as housekeepers for the sick. He continues, in an interesting article to be found in *The Home Journal of Health and Sanitation* (Nov. 1920) and in *The American Journal of Public Health* (Feb. 21, p. 108):

"These practical nurses have been fitted by life to meet family and community problems and they have never been trained to depend upon apparatus such as is found only in hospitals. They know how to sterilize bandages in the oven or in a wash boiler; for, we have taught them only such methods of sterilization as they can carry out in even the humblest home. They know how to prop up a patient by means of an inverted chair. They are, in short, trained to improvise necessary equipment out of what they have at hand—years of housekeeping have so trained them. I have heard it said that a woman can accomplish as much with a hairpin as a man can with a whole kit of tools—open locks, mend sewing machines, regulate dampers, etc. Whether this is so or not, I know that no woman would be able to keep house very long if she had to have specialized tools for everything she did. Her housekeeping existence is just one improvisement after another. What she has learned in one field of useful endeavor she ought to be able to carry over to a related field of usefulness. So I reasoned when I worked for the opening of such a course as we now have, and the results justified my belief."

There was no charge of any sort for the instruction given in the first course, although a fee of $5.00 was charged to those who wished to attend the banquet at the end of the course. This fee covered the expense of the banquet, of the notebook, of the certificate granted on completion of the course and left enough over to pay a part of the running expenses, the balance being contributed by a public-spirited Chicago woman. At the commencement of the second course, in order to diminish the size of the class, a charge of $5.00 was made and the same fee was maintained in the later courses with the result that the school is self supporting.

Even though many of the graduates of this school do not expect to do any nursing outside of their own families, it can readily be seen that the training received will enable them to guard the health of their families all the better, and even to recognize impending serious illness and call the physician early enough to ward it off. Indeed, the establishment of this school, which at first was an experiment, is considered as

a great step forward in the development of preventive medicine.

It naturally is gratifying that Chicago practitioners make more demands for these eight-weeks' nurses than can be filled; and that their services are satisfactory to the physicians.

Just as a little knowledge imparted properly stimulates the scholar to desire more, so, numerous graduates of the school for home nursing desired and asked for additional instruction, for a short hospital experience, it being impossible for them to attend regular training schools. For that reason, Doctor Robertson once more set his active imagination to work for the establishment of a hospital as a part of the school that would have the same relation to it as a model school has to the normal school for teachers. Accordingly, the Home Nurses' Hospital was opened in which the nurses in training received instruction not only in medical but also in surgical nursing. In seven months, there has been but one death while numerous operations have been carried out. The length of the course in the Home Nurses' Hospital is three months; one month being spent in the diet kitchen, one month in the operating room, and one month in the ward. There is no difficulty in securing patients, in fact, there is always a waiting list. The nurses themselves prepare all the food for the patients, keep the rooms clean and do whatever other work is necessary to keep the hospital in order.

As is very natural, a large proportion of the work has been obstetrical cases, and this indeed is commendable.

Of the graduates of this training school, a goodly number of "practical nurses" have been recruited, some of whom are willing to work from $15.00 to $20.00 a week, while others charge as high as $25.00. This constitutes a considerable saving compared to the fees for registered nurses, and brings nursing care to many who otherwise would be forced to do without it.

Finally, Doctor Robertson shows that these practical nurses do not work in unfair competition with regular graduate nurses, since there are not nearly enough of the latter to satisfy all demands. Even in executive positions and in positions requiring special training, there are many vacancies throughout the country for the reason that there are not enough graduate nurses to go around. It stands to reason, therefore, that an undertaking like that carried through by Doctor Robertson in his Home Training School supplies, indeed, a great need and it is but just that his example has already been followed in other cities.

SOME THOUGHTS ON ELECTROTHERAPY

After many years of careful study and preparation and some successful years of electrotherapy, I desire to offer some suggestions to those who contemplate taking up this form of treatment.

First, study yourself to ascertain if you are intended by nature to qualify in this branch of science. Study your hands to see if you have mechanical ability. If you have short, stubby fingers, do not undertake it. If you have long, slender fingers, if are apt with your hands, if you have the artistic temperament, the long flexible fingers of the artist, then you may safely begin.

Study the best surgeons you know and you will find this kind of a hand. Let me whisper, the surgeon is a skilled, refined mechanic. The higher his mechanical skill, the finer surgeon is he. This applies to mechano- and electrotherapy.

Next, you must be a plodder, careful as to detail, patient, observant, particular as to the niceties. You must be one who finishes his work perfectly. Then, you must be a student. There is no rapid road to electrotherapy. It is a slow, tedious road to travel. But, once its intricacies are mastered and you are master of the situation, knowing that you are, you have a most desirable occupation. Here applies the old adage: "He that has a trade or profession, hath an estate."

Not everyone can be an electrotherapist, because not everyone is willing to do the real, hard study necessary to get in touch, in harmony with this truly remedial agency.

Some years ago, medical journals were filled with advertisements of electrotherapeutic instruments. As a result, hardly any town of any size but had from one to four of these various forms of batteries. Yet, not one had the faintest idea how to use them.

I have visited office after office, to find the electric machines discarded in a side

room, brass work unpolished, fine cabinets covered with dust. When asked why this was so, I was always confronted with the answer: "There is nothing in electricity. I keep these things to impress the laity."

In some offices, I found men trying to use static machines who did not know the difference between voltage and amperage, one who could not tell the positive from the negative side of the machine. Yet, they seated their patients, made a big noise, gave some startling shocks and collected a fee for electric treatment. The patient paid willingly, for, forsooth, hadn't he had an electrical treatment? One man told me that all he used his static machine for was, the removal of hair. He had no other use for it.

One very finely equipped office, in which no money had been spared had a set of dry batteries and wall plates. The doctor had been giving galvanic treatments, charging and receiving pay, yet, in many places I found his batteries unconnected. But, he, the Doctor (save the mark!) did not know it. Do you wonder that electrotherapists fell into disrepute. Do you wish to follow that road?

On the other hand, I have seen some most remarkable cures performed by electrotherapy in its various modalities.

For the very busy man, this method is out of the question, for, he can do more business without it. He can not delegate his knowledge to another although he may tell some one else to look after the batteries. It is truly a personal work. That is why not just any person will, or can, be a true electrotherapist. To those, however, who do and can think, a golden field is open.

Dr. C. S. Cope.

Tacoma, Washington.

THE COUNTRY DOCTOR

Your article on page 118 of the February issue of Clinical Medicine should not be passed over lightly. There is a great need for the country doctor, but he is so badly abused and misused or not used at all on some occasions that I often think that about three-fourths of the small-town and country people ought to be forced to go many miles for medical aid or do without a doctor. They all want a doctor in their communities and for what? To do their dirty work and all the hardship, at a bare living rate or less.

It does not matter a great deal how competent he may be, the majority of people use him for trial cases or emergency hard work, "flu," pneumonia, typhoid, coughs and colds, whatever requires a maximum of work and brings a minimum of pay. They also invite him to donate quite liberally to charity, church and public utilities.

How often have I seen the fellow from the larger town called in council (whose advice was useless) and collect $25.00 to $100.00 for one call; and they grudgingly paid me $5.00. How often have I driven out ten to fifteen miles through mud or storm, diagnosed a case of appendicitis, then sacrificed other business, sleep and expense to get that patient to a hospital; then the surgeon stepped in, collected a fee of $150.00 to $200.00 and, if I would charge them $50.00 for my services, they would style me a robber. To cap it off, a lot of these would-be surgeons are hollering their heads off about fee-splitting. It is the country doctor who should get the $150.00 and the surgeon should get the $50.00.

I happened to be one of the doctors who fit glasses; and, how often have I seen my patient go to the city and pay $18.00 or $20.00 for a pair of simple glasses when I would have been tickled to furnish them for $8.00 to $10.00. My work was absolutely good, but I was a small-town fellow.

I remember one of my patients, a good friend, going to the hospital, taking a general anesthetic to have ingrown toenails removed at a total cost of about $50.00. The operation was not a success. Later, I did the work over, under local anesthesia, charged $5.00 (it took about 30 minutes, all told); and he said, I wish I could make money that easily.

We country doctors expected to have our small towns overrun with doctors when the boys came home from service; but, they had too much sense. They all went to the city where they could at least be hailed as "Doctor" instead of "Doc." I had thirty years of small-town work, left it six months ago and am now in the heart of the city where every doctor is the peer of every other doctor and where I may write

Dr. J. H. Blank, Physician and Surgeon.

There should be a series of articles or propaganda appear in all local papers fa-

voring the country doctor, a long series of articles, a regular campaign of advertising. But, I fear that that would be "unprofessional".

Now don't think I am a down and out, sore-on everybody and everything. I am not. I made good money (enough to retire) in thirty years of country work, but I also speculated in real estate, bought bank stock and other good securities and sold when the selling was good. Now, I am a city doctor, a physician and surgeon, worthy of the confidence of suffering humanity.

————, Indiana.

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[To improve the living and working conditions of the country doctor requires several things. Both he and his clients are in urgent need of re-education in many respects. For many years, the country doctor has gone on attending to his work, faithfully, efficiently, forgetful of self as of "pelf"; caring only to help his sick through their dangerous illness, being the friend, advisor and more of all those among whom he lived, and paying little attention to the financial aspects of his calling as long as he and his family had enough to eat and a roof to cover them. Now, with the elimination of distances, through better facilities of travel, with the invasion of his territory through the city physician with his superior (?) accomplishments, especially with the more strenuous competition on account of the numerous "drugless" cults and other irregular healing agencies (so called)—the country doctor finds himself driven to the wall.

First of all, he, himself, must learn to know definitely that he is a good and efficient practitioner of medicine. He must learn to put an adequate estimation on the value of his services. He must learn—and that is the most difficult of all—to make his charges promptly and to insist upon having his bills paid as promptly as he responded to the calls for assistance. If he finds himself going back because he cannot keep up with the times and with the new discoveries, he must arrange to take a postgraduate course and brush up on things regarding which he feels himself weak. In most cases, he will return to find his people more willing to employ him. Where that is not so, where another physician has settled down in the nest left empty for a time, it is better to find a new location.

However, it is just as important that the people, those living in the country and in small towns, should learn that their "country doctor" is the equal (with but few exceptions relating to highly specialized matters) of any city physician; that he is far more interested in their welfare and far better able to do them justice than is the city man who is called only occasionally and with whom the personal factor, the close personal relation can never be established as it can with the home physician. The people must be made to see that their own physician is their best and nearest friend and that their interests will be guarded far better in his hands than in those of the interloper from outside.

If the country doctor is actually incapable (and, such things do happen, you know!) if he is either too indolent or too outright lazy to learn and even to attend to his charges with sufficient care, if he does not care—why, then, he should be eliminated from the medical activities of the place. A lazy, or indolent physician does not belong in the country. Practice there requires much hard and devoted work. The country doctor always will have a harder and more difficult time than his city colleague. But, he will have his own compensations. The thing is, only, to teach him and his people that he is distinctly worth while and that he is the best doctor for them.—Ed.]

DOCTORS AND PHYSICIANS

In the February's number of Clinical Medicine (p. 117), I noticed an article signed by a close neighbor of mine, Dr. J. P. Ham, of Yuma, Colorado, and I want to take his views in some things about the physician. Not the Doctors, as he calls them; because he includes the osteopaths as "Doctors". That's where I disagree. I may be wrong (I hope not)—but, I think that chiropractors and osteopaths should be in the same boat and paddle in the same stream.

Here, in Colorado, we have such wonderful "Laws". I hardly know how to express it. At any rate, the "Law" hardly countenances a chiropractor—while giving to osteopaths full swing, like regularly graduated physicians—excepting that they

may not prescribe alcohol. I know a few osteopaths and their two years of schooling remind me of my two years of hospital. Outside of that, though they sure are taught how to feed the "Public" the "Bull"; and, they seem to get away with it. What I would like to know is, what the public at large expects from the "doctors" that are consulted. What qualifications are they required to possess, in the opinion of that same public? Or—does the public not care a hoot?

R. A. Ashbaugh.

Otis, Colo.

"IMPETIGO IN CHILDREN."[1]

I first became acquainted with this disease in Kansas, in 1880. It was there dubbed "prairie itch." I treated many cases of it in Kansas, also in Massachusetts and Michigan. I've tried sulphur and lard, Fuller's earth mixture followed by strong alkaline baths, and many other things. However, the best thing of all I have used is: hydrarg, bichloride, drs. 2, ammonia muriat, dr. 1, aqua dist., pints 2.

Of late years, I have taken from 2 to 3 bichloride tablets and put them in a quart glass jar, filled with water. Dip compress of absorbent cotton in solution, moisten the spots two or three times a day; change all underwear, bed sheets; take bath in strong soapsuds. Next day repeat this same process. Two or three such treatments have never failed to eradicate the disease.

Chas. M. Wilson.

Owendale, Mich.

RESTORATION OF BREATHING BY DILATATION OF THE SPHINCTER ANI

Some years ago, Dr. E. H. Pratt, of Chicago, taught dilatation of the sphincter ani as a dependable method to restore respiration in cases where this had failed. The method was used largely, by numerous physicians and, undoubtedly, abused by some. That, though, is unavoidable in emergency cases where impending death makes attention to the niceties of technic a secondary consideration; the important point being to restore life, if possible.

The fact remains that, in the careful dilatation of the sphincter ani, we have an efficient means of restoring respiration and that this method may provide an agency for restoring life when this has apparently gone out.

Before the Ohio Valley Medical Association, in November, 1917, Dr. John W. Lorenz, of Evansville, Indiana, related several experiences in which he employed this method to good advantage. One of these concerned a seven-year-old boy, ill with typhoid fever, whom the doctor found, on one occasion, breathing very slowly and evidently dying. On introducing the oiled index finger and then the thumb, and dilating the sphincter gently, breathing was restored and recovery insured.

Doctor Lorenz relates an experience of another physician, in a baby being apparently stillborn. Artificial respiration and other commonly-employed methods failing, this physician introduced her index finger into the baby's rectum but without results. Then she introduced her thumb, when the baby gave a gasp and all went well. Several other instances are cited in which respiration was suspended, sometimes after convulsion, sometimes after other accidents, and in all of which dilatation of the anal sphincter was followed by resuscitation and usually by recovery.

The method, undoubtedly, is one that physicians should keep in mind in emergencies. Especially in the case of stillborn infants, but also elsewhere, it is well to have such an acceptable and simple method at hand that promises so good results.

BE EXPLICIT IN YOUR DIRECTIONS

The necessity of giving a patient very explicit and minute instruction how to use a certain medicine came home to me in a most disagreeable manner while practicing in the state of Tamaulipas, Mexico.

In the year 1899, I was sitting in my office, on a nice day, trying to decide which would be best, fishing or hunting, when a boy arrived on horse-back asking me to go to a Mr. N., at his ranch about twenty-five miles from my office. I hitched up (we had no automobiles, at that time) and off we went to Mr. N. All I could get out of the boy was, that Mr. N. was the foreman of the ranch and he was powerfully sick. We arrived at the ranch at about 2 p. m. and, after examining Mr. N., who was a Creole (half Spanish and half Indian), I

[1]See Clinical Medicine, Nov., 1920, p. 764.

found him with a temperature of 103° or 104° F. though heart, lungs and everything else were normal. I gave him 5 grains of blue mass, to be followed in three hours by a tablespoonful of Glauber salt (sodium sulphate). For the reduction of the fever, I was in the habit, at that time, of using guiacol by inunction. So, I handed to his wife, who seemed to be fairly intelligent, about 4 mils (Cc.) of guiacol and told her: "After his bowels move and if he still has fever or feels hot, you take half of this medicine and rub well into his groin".

Physician: "Do you understand me perfectly?".

Patient's Wife: "Yes".

Physician: "Where is his groin?"

Patient's Wife: "Between his legs", with a blush.

Physician: "All right, I guess you know what I mean.

Thinking that everything was understood, I took my hat, went to my buggy and back to my office. About 8 or 9 p. m., I noticed a buckboard stopping in front of my house and saw the wife of Mr. N. alighting. She was very much excited, as though coming out of a big fight. She burst into my room shouting: "Doctor come at once to the ranch, my husband is crazy. He smashed all our furniture and turned me out on the street". After quieting her sufficiently to make head or tail out of her ravings, I found out that she had not applied the guiacol on the groin as ordered; she had applied the whole teaspoonful on her husband's *scrotum,* thinking that all the medicine was better than half of it. Needless to say, this kind of treatment made Mr. N. sit up and take notice promptly, imagining that his beloved wife was trying to injure him permanently on a very vital spot of his anatomy. Of course, he got mad and, man-like, threw everything within his reach, including his wife, out on the street. She picks herself up and runs to the next neighbor, borrows a horse and wagon and comes to town, telling me her troubles.

I knew that the burning sensation on Mr. N.'s scrotum would last only a short time; so after much explanation, I finally prevailed and sent her back to her husband.

Several weeks afterward, I had occasion to see a patient on the same ranch where I accidentally met Mr. N. He gave me a suspicious look, though he did not say anything. Of course, I did not mention the subject either.

ALFRED E. STAPS.

Chicago, Ill.

POSTGRADUATE SCHOLARSHIPS

The New York Post-Graduate Medical School and Hospital announces that there will be available, this year, six scholarships under the terms of the Oliver-Rea Endowment.

The purpose of the endowment is, to award scholarships to practicing physicians of the United States to defray in full the expenses of tuition at the New York Post-Graduate Medical School.

According to the wishes of the donor, physicians in the state of Pennsylvania will receive preference in the award of these scholarships.

Applications may be sent to the President of the New York Post-Graduate Medical School and Hospital, 20th Street and Second Avenue, New York City.

PRELIMINARY PROGRAM WESTERN ELECTROTHERAPEUTIC ASSOCIATION

Kansas City, Mo., April 18-22, 1921.

Sarcoma of the Testicle with Metasases to the Abdominal Lymphatics, treated with Radium and X-ray—Dr. H. H. Bowing (Mayo Clinic), Rochester, Minnesota.

The Use of Radium in Goiter—Dr. D. T. Quigley, Omaha, Nebraska.

Reconstruction Work in the Hospitals of the Service—Surgeon-General H. S. Cumming, U. S. P. H.

Metabolism—Dr. Byron Sprague Price, President American Electrotherapeutic Association, New York City.

New Principles of Roentgenotherapy—Dr. A. J. Pacini, Chief X-Ray, U. S. P. H. S.

Intestinal Stasis and Induction of Normal Muscular Movement—Dr. Frederick H. Morse, Boston.

The Significance of Rodiotherapy—Dr. William Benham Snow, New York City.

X-Ray Therapy of Tuberculosis of the Kidney—Dr. Williams L. Ross, Omaha.

Goiter, Its Treatment, with presentation of Case—Dr. L. A. Marty, Kansas City.

Recent Developments in X-Ray and Radium Therapy—Dr. A. F. Tyler, Omaha.

Tesla Coils—Dr. Omar T. Cruikshank, Pittsburgh, Pennsylvania.

Cancer, Its Treatment—Dr. T. Howard Plank, Chicago, Illinois.

Progress of Hydrotherapy—Dr. Curran Pope, Louisville, Kentucky.

Myxedema Following X-Ray Treatment of Thyroid Gland—Dr. S. Grover Burnett, Kansas City.

Subject to be Announced—Dr. Edward H. Skinner, Kansas City.

Subject to be Announced—Dr. Charles J. Cahill, Kansas City.

For program, address Dr. Chas. Wood Fassett. Secretary. Kansas City, Mo.

THE DOCTOR'S WIFE, AND "GOAT FEATHERS"

"Surely, I voice the sentiment of many when I send my hearty congratulations on your wonderful article in the February issue, entitled 'Goat Feathers.' Being the wife of a physician who is fairly busy, and having taken care of the office for many years, I have had the sad opportunity of experiencing all and more of the 'Feathers' mentioned.

"Who suffers by the results? Just because things are kept from the 'partner' or because of the more convincing language of the agent upon his prey, the M. D.'s family is the sufferer; for, they simply must do without that certain amount of honest earnings, besides having a lot of 'wonderful volumes' taking up space in the library, which are practically void of value either instructive or commercial. Even the uncollected bills are less painful, as we usually add them onto our yearly charity budget and it does appear generous. Of course, most doctors are good hearted and easy.

"I hope they will doubly profit by earnestly reading your columns in the future.

"With all good wishes for your continued success, I am your reader,"

X. Y. Z.

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[The writer of the editorial "Goat Feathers" had no other object in mind than to poke a little good-natured fun at one of the weaknesses of the profession. But, the above letter reminds us that the matter has a serious side. It would, indeed, be interesting to know how many millions of dollars have been extracted from the pockets of the medical profession by shrewd promoters who trade upon two wellknown weaknesses of human nature—the difficulty of saying "no", and the desire to get rich quickly. Buying books one does not need, is a small matter compared with fake mining schemes, and oil propositions. After a few years of experience, the writer adopted the following dialogue to get rid of book agents:

Doctor. "I keep posted on the new books coming out, and I can afford to buy only a few of those I really want. Now, would I not be very foolish to buy books that I don't want, when I can not afford some that I do want very much?"

Agent. "But this is such a valuable work that you can not afford to do without it."

Doctor. "Perhaps so, but I am going to buy the books I want first."

If this does not settle him, then give him a blunt and thunderous "No, absolutely no!"

To the promoters who want to make you rich by investing in oil, gold, or what not, just say: "This looks like a good thing. But I never invest money without consulting my banker first. Call on him, explain it to him, and if he approves I might possibly invest." They never come back because they know what the banker will say.

Just reflect a moment. If it were a bona fide proposition, plenty of capital would be ready without peddling the stock. And, what word should we use to describe any person who will, on the word of a promoter, entrust his hard-earned savings to a group of men whom he does not know? How does he know they are honest? Even if it is a real mine or oil well, how does he know whether the managers have business ability?

However, most promoters do not expect to develop a mine or a well. They are simply fishing for suckers; and, alas! the crop is perennial. The writer used to say and believe that suckers (the fish) would not bite at a baited hook and, therefore, were more intelligent than their human prototypes. Still, last summer, on his vacation, he saw with his own eyes that under certain conditions they do bite and get caught. So, that makes it unanimous. Glory be! The fish can no longer boast of superior intelligence. We are vindicated. —Ed.]

MEDICAL NEWS

Mental Patients in Public Service Hospitals.—The congestion in the neuropsychiatric hospitals of the U. S. Public Health

Service throughout the country has been brought out by the necessity of transferring 30 military patients from the big Service hospital on Grays Ferry Road, Philadelphia, to make room for other patients who had greater claims on its facilities. By the time the transfer could be carried out, the hospital was again crowded to capacity. The Service is now caring for 5910 neuropsychiatric patients, and the number is steadily increasing. Search is being continually made by official and nonofficial organizations for buildings that might be leased by the Service for hospitals. Such, however, have proved to be few and far between, and the necessity of building those needed is daily becoming more apparent.

It is the policy of the Public Health Service to provide for all neuropsychiatric patients, in its own hospitals instead of in contract hospitals; but until proper buildings can be had this is impossible.

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Youth and Life.—"Youth and Life," the new exhibit of the U. S. Public Health Service, consists of 24 attractively illustrated cards, measuring 28 by 22 inches each. The exhibit, which is especially addressed to young women, is an appeal for physical fitness as the best aid to fulfilling the duties and enjoying the pleasures of life. The value of hygienic living and the need for plenty of exercise, fresh air, sleep, and proper food are emphasized. The function of the glands of the body, including the sex glands, are shown. Human reproduction is approached through a brief presentation of reproduction in plants and animals; and attention is called to the probable effects of sex misconduct (venereal diseases). Womanliness, motherhood, and home-making are extolled. This exhibit may be borrowed for special work from State boards of health or be purchased through the American Social Hygiene Association, New York City.

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Reports on nonrespectable Diseases.—An increase of about 30 percent in cases of venereal disease reported from all states except Nevada and the District of Columbia is shown in reports to the U. S. Public Health Service for the three months ending September 30. Seven states have laws requiring physicians to report all such cases with the names of the patient; and nearly all the other States require them to be reported without the names. The sudden jump in the number reported probably means not that the diseases have increased but that more physicians are obeying the law. Curiously enough, the reports indicate that physicians in western states are far more law abiding than those in the east. Massachusetts, for instance, with a population of 3,850,000 reports a good deal less than 3,000 cases, while Texas, with a population only one-fifth larger, reports more than 15,000 cases. Other western and eastern states show similar relations.

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Clinic and Postgraduate Course at the John A. Andrew Memorial Hospital, Tuskegee Institute, Ala.—We are informed that, beginning with April 4 and continuing for four weeks, there will be a postgraduate course given at the Tuskegee Institute, Alabama. Clinics, lectures and other instruction will be given from 9 to 12 a. m. and from 2 to 5 p. m. daily. The evenings will be devoted to lectures, recreational entertainment, moving pictures, demonstrations of surgical technic, social hygiene, and so forth. The instruction includes such subjects as laboratory technic, x-ray demonstrations, microscopic technic.

The physicians who have consented to give lectures and clinics on that occasion include many leading medical men of the country. The course itself will surely be useful to those participating.

Particulars concerning it can be secured from Dr. John A. Kenney, Tuskegee Institute, Ala.

Just Among Friends

A DEPARTMENT OF GOOD MEDICINE AND GOOD CHEER FOR THE WAYFARING DOCTOR

Conducted by GEORGE BUTLER, A. M., M. D.

Food in Its Relation to Health

I HAVE been asked to give my views on the food question. Some time ago, I contributed an article for this journal entitled, "A Common-Sense Essay on Diet," and I thought that that would be the last word on the subject. But, now, I am requested to write something more; so, I give you some random thoughts as they come to me. I suspect that this request is, because of the comments occasioned by the excellent work entitled "Eating to Live Long" by Doctor Porter. A review of this was printed in CLINICAL MEDICINE for October, 1920, page 706.

Now, while I heartily agree with much that Doctor Porter says, I am not wholly in accord with all his statements. That, however, doesn't prove anything. We all have our pet notions about how to keep well, and food fads are but one of many fads. The world is full of whimsical notions in regard to health. There probably is no other question concerning which so many stupendous errors are rampant in the public mind as, the influence of food in its relation to health.

There is no indigestible mixture of condiments and French cookery which has not been recommended by somebody as being especially healthful. The most evil practices in relation to diet have had the endorsement of some who may profess authoritative knowledge. We seem to be living in an age of fads. Starting with an idea that furnishes a small foundation, the fad doctor proceeds to construct a gorgeous theory, which, when it is completed, very closely resembles a haystack resting on a fence post.

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The exclusive meat diet is an exceedingly harmful fad of this sort, which is responible for making a large number of people miserable with maladies that are the outgrowth of acid poisoning.

The no-breakfast plan and the raw-diet fad are less harmful notions but possess little better foundation in scientific fact. The stomach of a man who eats a hearty six-o'clock dinner is in no way fit for breakfast the next morning, and is in greater need of nothing more than a good rest. The sensible way, however, is to omit the six-o'clock meal, taking instead a little well-ripened fruit, and nothing else, avoiding cream and cane sugar. Some foods may be eaten raw without injury and, in some cases, even with advantage.

Fruits and nuts are by nature prepared for digestion without the aid of cookery, while dry grains and vegetables cannot be well digested by the human stomach without the aid of preliminary digestive processes, which may be affected by exposure to moist or dry heat. The heat of the "sunshine" coming out of the glowing fire does for the starch of the vegetable and the grain exactly what the sunlight does for the starch of the green fruit. It dextrinizes it and thus prepares it for prompt digestion by the human stomach. It is just as reasonable to feed a dog on dry grains and grass as for a man to undertake to subsist upon a similar dietary. Man is naturally a fruit and nut-eating animal. Dry grains and herbs in a raw state are adapted to animals who have stomachs especially adapted to the digestion of such foods. The goat with its four-stomach-power digestive apparatus, is able to make sugar out of paper and to extract a mild sort of nourishment from drygoods boxes. In other words, it can live and thrive, for a time at least, on wood and water.

The same is true of sheep, cows, and other herbivorous animals. Even horses,

although their digestive apparatus is less complex, are able to digest wood to a certain extent. But the human stomach, like that of the ape, gorilla and chimpanzee, is adapted to the digestion of more elaborated and easily assimilated foods. Those animals which live on coarse herbage and raw grains must devote a large share of their energy to the extraction of nutriment from their crude diet. The process of developing energy from corn and hay is a very slow one. The energy of fruits and nuts is more readily available. The sugar of fruits is already completely digested and, being quickly absorbed, shows its presence in the body by an immediate increase in energy and working ability. By contact with the digestive fluids, the dextrin which abounds in fruits and nuts is almost instantly changed into sugar, which represents energy in a form immediately available.

Probably, many persons have experienced benefit by a change from their ordinary fare to a raw diet, chiefly through the fact that the change was equivalent to a mild starving process, which, in a person whose tissues have been filled with uric acid and other tissue cinders through flesh eating and overeating, is a sovereign remedy, superior to every other that can be suggested.

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The fasting cure is another fad which has recently broken out in various parts of the country. This, like the no-breakfast notion, is not very likely to be productive of serious injury, for the reason that in this land of plenty, where foods are cheap and available, multitudes of peop'e are suffering from overeating and are likely to be benefited by a few days' abstinence from food, which gives nature an opportunity to gather up and consume the cinders in the shape of uric acid and other half-burned wastes with which the tissues are clogged.

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Truth in relation to diet, as well as in relation to everything else, must be wrought out on the anvil of life by the hammer of actual experience. Unfortunately, the majority of modern philosophers seek truth by the same method by which the spider makes its thread—by a sort of spinning process. A teacher in a mission school in Burma once asked a native boy who had an unusually bright composition if he composed it himself. "Yes," said the lad, rising in defence of the originality of the composition. "I pulled it out of my own stomach." A great share of the theories exploited in these modern days have the same origin as the boy's composition and often afford evidence of indigestion in a very advanced stage.

Truth is to be discovered by observation rather than by meditation. It is true, the facts of experience must be well considered and digested, but, real truth is the outgrowth of actual life rather than of cogitation. No theory can be safely trusted as a rule of life until it has been tested by actual experience and, even then it is hardly a safe criterion; for, it sometimes takes a generation or two to test the validity of a philosopher or the truth of a proposition. Unquestionably, millions of people have died in the attempt to prove by experience the truth or untruth of views which have been accepted on the strength of authority. The only safe way is, to refuse to recognize as truth any proposition which cannot be shown to be the outgrowth of well-established fundamental principles or well-considered human experience.

There are many scientific reasons for certain dietetic habits.

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There are many eating habits which, though followed merely because they have been customary from time immemorial, really have a scientific basis. Such is the eating of butter with bread, which by itself, though rich in starch and having a fair proportion of proteid—at all events when made of wholemeal flour—has not the fat which is dietetically necessary. Similarly with rice puddings, the milk is added to make up for the deficiency of proteid in the rice. The scientific justification for adding the milk to tea is, however, of quite a different kind. There is danger in taking meat with tea; the tannic acid contained in the latter combines with albumen to form tannate of albumen, which is practically leather, so that by drinking tea the coating of the stomach is made leathery. But, milk also contains albumen and, when milk is added to tea, the molecules of tannic acid select their albumen from it. Now, as a divorce is unknown to tannate of albumen, the albumen of the stomach is less liable

to be affected by tannic acid than it would be if the tea were taken alone. Then, there is a chemical reason for adding vinegar to salads. Raw vegetables are easily enough digested by cows and horses but only with difficulty by the human stomach, because they contain that hard, fibrous substance, cellulose. Acids, however, dissolve cellulose to some extent, and vinegar is an acid. That is why it is a good thing to take lemon-juice or vinegar with salad and cabbage and, doubtless, that is why it tastes so good, for, the palate is an excellent judge of what is good for the stomach. The justification for adding oil is, partly, that there is virtually no fat in the salad itself, and, partly, that it protects the lining of the stomach from the acid in vinegar.

Reason for Eating

We frequently hear the assertion made, "Farmers' wives and farmers' daughters have not kept pace with the farmer himself in the advance of science during the last twenty-five years." While he, by steady application, has learned what elements each of his different crops require to ensure the best possible growth and has also perceived how, by working the soil, changing his crops about, etc., he can enhance their growth and their value; while he has learned just what food to give to his stock to ensure the most satisfactory results, whether these be the growth of the beast, the milk production, or the endurance—the wife or daughter who is in charge of the house, into whose charge is given the health, strength, and development of the family, goes about her duties in the same old way. She seems only to realize that a person must have a place to sleep and something to allay hunger, and she is fully capable of looking out for her family as far as this goes.

Allaying hunger is the least of reasons why we should eat. As a race, we are of inferior strength to the race one generation back. Yet, the reverse of this should be true considering all of the scientific enlightment that this agent has given us. The cook is more responsible for this state of affairs than is generally appreciated.

Physical development depends almost entirely upon nourishment. It would be much more likely that a child, given every requisite in the way of food, would mature into a strong, well-developed adult, even though surrounded by unsanitary conditions and poor environments, than for a child improperly fed, even in the midst of good sanitary conditions. In fact, it is utterly impossible for a child to attain the proper mental and physical growth on improper food. A properly nourished body will be a perfectly healthy body, physically, mentally and morally. Under the reverse conditions the body can not be strong as it should be and the nervous, mental, and moral condition will be largely controlled by the physical development. While a seemingly clever and brilliant mind may be contained in a weak body, no one can say what that individual might have been capable of had he or she not been handicapped by physical weakness.

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All the ailments that affect us may be traced either directly or indirectly to the food we eat or do not eat. Even constitutional or hereditary trouble might have been avoided had proper food only been considered more carefully by the generations before. The responsibility, then, of the household manager is, to provide suitable food for those who sit regularly at her table, and also to think of the foundations she must lay for more healthful generations to come.

Food supplies the strength of the body as well as material for its waste and repair.

Our diet is of considerable importance.

"The longer I live," said Sydney Smith, "the more I am convinced that the apothecary is of greater importance than Seneca and that half the unhappiness in the world proceeds from little stoppages, from a small duct choked up, from food pressing in the wrong place, from a vexed duodenum, or an agitated pylorus. Unpleasant feelings of the body produce corresponding sensations in the mind, and a great sense of wretchedness is sketched out by a morsel of indigestible or misguided food."

Abernethy said: "I tell you honestly what I think is the cause of the complicated maladies of the human race; it is their gourmandizing and stuffing and their stimulating their digestive organs to an excess, thereby producing nervous disorders and irritation. The state of their mind is another grand cause; the fidgeting and discontenting themselves about that which cannot be helped; passions of all kinds—ma-

lignant passion and wordly cares—pressing upon the mind, disturb the cerebral action and do a great deal of harm."

Eating As An Amusement

Undoubtedly, quite a large proportion of well-to-do people find one of their chief enjoyments in the partaking of their daily meals. Three times a day or oftener they sit down to eat, in a state of eager expectancy of having a good time in the consumption of rich and tasty viands. Tickling the palate with savory food-stuffs affords to these persons more real "fun" than they know how to elicit in any other way. The sting and smack of highly-seasoned comestibles create a sense-tingle which is the dearest pleasure of their lives. Hotel menus, cook-books, home magazines, and the domestic columns of newspapers are searched for new and piquant combinations. The bill of fare must be changed every day and every meal. The whole life revolves about the dinner table.

Such persons sin against their bodies, not only in respect to the unwholesomeness of the foodstuffs which they swallow but in the amount of food eaten at a meal or in the course of a day. The prime object in eating being mere sense gratification, no restraint is put upon the appetite.

The capacity of the stomach is the only limit to the quantity of food swallowed at each meal. No account is taken of the nutritive value or state of concentration of foods. As long as an agreeable gustatory thrill can be evoked, and as long as the stomach will expand to admit another morsel, the miscellaneous procession of foodstuffs passes on through the esophagus without interruption or delay. Only a painful sense of fullness or actual inability to swallow another mouthful is recognized as a hint to stop eating.

This enormous overeating is responsible for a host of maladies. Indigestion, with all its attendant miseries, mental and moral as well as physical, is as certain to follow as night follows day if the individual does not die of accident before his native stock of vigor is exhausted. Rheumatism, gout, obesity, disorders of heart and liver and kidney, well known to be incurable when developed, are the natural outgrowth of continual overfeeding. "Whatsoever a man soweth, that shall he also reap," is a physiological law the consequences of which cannot be averted by any artifice known to man.

The prostitution of the instinct of hunger, the desire for food, to a mere animal gratification is an abuse of nature which is sure to be visited by retribution. No sense can be diverted from its proper use without evil consequences. The most necessary and essential functions of the body, when perverted, become destructive. In no case is this more clearly illustrated than in the perversion of the sense of taste.

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In his admirable work, "The New Glutton," Mr. Horace Fletcher has called attention to a method of gratifying the sense of taste which is wholly legitimate while at the same time affording the greatest possible degree of pleasure. This consists in the thorough mastication of the food, which means, the insalivation of every morsel of food taken into the mouth whether solid or liquid. According to Mr. Fletcher, solids must be retained in the mouth until they are reduced to a liquid state. Every particle must be dissolved before the food is allowed to enter the stomach. In the meanwhile, the nerves and muscles of the throat will be so educated that they will refuse to swallow food which has not been properly prepared. Liquids of all kinds, with the exception of water, must be retained in the mouth until so mixed with saliva that the flavor is very materially reduced by dilution. This method stimulates the sense of taste to the highest degree, since the food is treated in such a manner as to extract from it every particle of its sapid substance, and the "Fletcheriser" thus secures the greatest possible amount of gratification from a given quantity of food; whereas the man who eats hastily swallows without appreciating the greater portion of what he eats, the food not being retained in the mouth long enough for the taste-buds to be brought in contact with the sapid substance which it contains.

Thus a greater amount of enjoyment may be derived from the thorough mastication of a given quantity of food than from twice the quantity eaten hastily. This is the legitimate use of the sense of taste.

'[*To be continued*]

Among the Books

A CORRECTION

In our review of Webster's "Diagnostic Methods" (February issue, page 134), the price is given as $5.50. This is an error, the price of this latest edition of the work being $9.00.

The publishers, P. Blakiston's Son & Co., have called our attention to the matter, because several of our readers have ordered the book, on the strength of our review, at the price indicated there.

We regret having unwillingly given wrong information and suggest that the correct price be entered with pencil.

A NEW NOVEL BY DR. G. FRANK LYDSTON

The Burton Publishing Company, of Kansas City, announce, in the current number of the *Mid-West Bookman*, the forthcoming publication of "Trusty 515," a sociologic novel by Dr. G. Frank Lydston. This novel has for its central theme certain evils of our penal system, political intrigue in public institutions and the materialistic theory of the crime problem. The dominant character is a young civil engineer who has been "jobbed" through the machinations of a political tough and "heeler," and sentenced to Sing Sing for a murder of which he is innocent.

BUTLER: "HOW THE MIND CURES"

How The Mind Cures. A Consideration of the Relationship Between Your Outside and Your Inside Individualities and the Influence They Exercise Upon Each Other for Your Physical and Mental Welfare. By George F. Butler, A. M., M. D. Medical Director, North Shore Health Resort, Winnetka, Ill. New York: Alfred A. Knopf. 1921. Price $2.50.

Through acting upon the mind, we may not only influence the mind but also the body. To physicians, this has been an accepted tenet or an unconscious practice in all ages. A great part of their treatment of disease has been founded upon it. Also, it has been the basis of all miracle cures, faith cures, and the like.

Mind and body are so related that disease can, sometimes, be best treated by approach from the mental side and, sometimes, from the physical side. This book tells how the *Mind* cures; not only cures, but by a proper understanding of its methods, enables one to be and keep well.

In this book, the author postulates a doctor and a patient carrying on a dialog. The form is simple, the substance excellent, and the whole is really about as interesting as a well-told story. Aside from its unquestionable value as a guide to health, it has merit as a character study. No disrespect is intended in saying it is a clever and effective literary work that anyone would be pretty sure to read through once it is opened. The doctor in the dialog is elderly, wise and quaint, a veteran who has worn harness long enough to make it sit easy on him, and who has seen enough of humans and their follies to be tolerant in all things and amused by many. He has a rich, though apparently unconscious, sense of humor and an equally unconscious wealth of learning. The patient is an honest representative of the average man in commercial life, speaking the language of the street with fluency and color. The way that man talks about himself and others, his blunt confessions of igorance, his insistence upon knowing just exactly the meaning of anything that is new to him, and his satisfied surprise as he acquires knowledge, constitute about as good a character study as one will find on the stage of any theater.

A sound treatise on mental healing and a portrayal of character bordering on comedy would at first sight appear antipodal; yet, here they are in one cover. The explanation lies in the fact that the author, Dr. George F. Butler, is at the head of one of the most successful sanatoriums in the country, The North Shore Health Resort, at Winnetka, Ill.,—a few miles north of Chi-

cago. He was formerly Medical Director of the Alma Springs Sanitarium, Alma, Michigan, and of Mudlavia, Kramer, Indiana, and for several years he was County Physician of Cook County, Illinois, having charge of the Psychopathic Hospital in Chicago. In these various institutions, he has had under his professional care many thousands of patients in addition to many others he has met in private practice and consultation during the past thirty years. For twenty-eight years, he was a medical teacher.

As a writer on broad medical topics, he holds an eminent place in the estimation of the profession.

It is doubtful if there is any physician better qualified to write so intelligently and entertainingly on How The Mind Cures. The work has this peculiarity—any lay-reader can follow it through and get every idea in it without having to read any one line twice to know its precise intent; and, no physician could read it without finding a whole lot of things he never had thought of.

DE MONE: "THE LITTLE WORLD"

The Little World. A Hospital Romance. By Millicent Peppard De Mone. Kansas City, Mo.: Burton Publishing Company. 1920. Price $1.50.

This book contains either an interesting hospital story or a serious arraignment of hospital ethics or, better, ethics of nurses' training schools—according to the viewpoint of the reader. As a piece of literature pure and simple, it is acceptable for an evening's reading; not very brilliant, occasionally even awkward in diction and by no means free from typographical errors. Still, the story as such engages one's interest sufficiently.

If we consider "The Little World" as a problem story, our attitude must necessarily change somewhat. The author virtually brings some serious charges against the nurses' training schools. Undoubtedly, it is unavoidable that, in the stern and practical life of pupil nurses which, moreover, is regulated by strict rules and subject to considerable hardship, most of the ideals that may have induced at least some of the pupils to enter the school are sadly dragged into the dust. It requires an ineradicable idealism, an unusual love for one's fellowmen and women, an inexhaustible fund of the saving sense of humor to pass through a course of training, to witness day by day the never-ending misery, pain, unhappiness, without losing one's idealism, without being hardened and without even becoming callous.

When it is charged that, in virtually all nurses' training schools, conditions exist as they are depicted in this story, when it is asserted that the moral standard of the young ladies is by no means very high, or that it soon is lowered through force of circumstances; when it is charged that the staff physicians themselves contribute to the moral laxity of pupil nurses, the problem becomes a serious one. The Reviewer knows, through first-hand information, that at least some of the things charged by the author are true in some of the schools. It would be distressing to think that the author's assertions are based on generally prevailing facts.

Probably, though, the author has built her story upon occurrences in one or two training schools, permitting it to be inferred—rather unjustly—that such conditions are prevailing more or less generally.

However that may be, it would be well for at least all physicians who are connected with hospitals and hospital training schools to read this little book and to cogitate. If abuses exist, they should be remedied. If the nurses' training schools are conducted with undue hardship, if they destroy the womanliness of the pupils, if they deprive them of their ideals and if worse conditions prevail, more or less generally, it is time that a thorough housecleaning be inaugurated. If the author's accusations are extreme, they should be refuted.

"STANDARD METHODS FOR THE EXAMINATION OF WATER AND SEWAGE"

Standard Methods for the Examination of Water and Sewage. Fourth Edition. Revised by committees of the American Public Health Association, American Chemical Society, and referees of the Association of Official Agricultural Chemists. Boston: American Public Health Association. 1920.

"The Standard Methods for the Examination of Water and Sewage" contains in a compact and convenient form most of the more modern methods for the chemical and

bacteriological examination of water and sewage. In some cases, the older methods have been retained, as for instance the estimation of the total hardness of water by titration with standard soap solution. On the other hand, for the separation of lithium from sodium and potassium, the troublesome method of Gooch is given and no mention is made of the simpler and more reliable ether-alcohol separation of Palkin. Numerous references to the literature are given, these being collected in convenient bibliographies at the end of each of the three sections, chemical, microscopical and bacteriological, into which the book is divided.

GORDON: "FRENCH-ENGLISH MEDICAL DICTIONARY"

French-English Medical Dictionary. By Alfred Gordon, A.M., M.D. (Paris). Philadelphia. P. Blakiston's Sons & Co. 1921. Price: $3.50 net.

American physicians have always looked to France for guidance in matters medical. It was only during about a quarter century preceding the war that the majority of those going to Europe for postgraduate work preferred the German clinics and those in Vienna. Since the war, and in consequence of our cooperation with the French during that strenuous period, the old friendly relations have been reestablished all the more cordially.

It is, therefore, but natural that an increasing number of American medical men should become interested in French medical literature; and that special aids for the study of French books and journals should be offered for their service.

Gordon's French-Medical Dictionary supplies a very complete list of medical and surgical terms, in French, with their English equivalents. It will, undoubtedly, be found of great service by many physicians.

BARUCH: "HYDROTHERAPY"

An Epitome of Hydrotherapy for Physicians, Architects and Nurses. By Simon Baruch, M.D., LL.D. Illustrated. Philadelphia and London. W. B. Saunders Company. 1920. Price $2.00.

Any physician who feels an interest in hydrotherapy ought to read this book. The present Reviewer made a study of this subject over forty years ago, and he has always felt since that there are many objects which can be better accomplished, in the treatment of some diseases, by the application of water than by the use of drugs. A careful reading of Professor Baruch's work shows that great progress has been made in forty years in the scientific application of water to the cure of disease. One may wonder why hydrotherapy is so little used by the medical profession; there are several reasons. In the first place, there is public prejudice to overcome; most patients are not satisfied unless given medicine. In the second place, there is human indolence to overcome; it is less trouble to write a prescription—less trouble to take a dose from a spoon, or swallow a tablet, than to make an intelligent application of hydrotherapy. Thirdly, nurses and doctors require special training in the application of water or, else, they may do more harm than good. Fourth, because of the need of this special training, it is almost indispensable to send patients to an institution, in order to get the proper technic and apparatus; and, many patients can not afford the expense of institutional care. In view of all this, most of us go along in the old routine, although we may recognize the value of hydrotherapy in certain conditions.

The chapter on ice packs and ice-water baths ought, however, to be read by every physician, because they are sometimes attempted by persons unfamiliar with their dangers, and, with disastrous results. Doctor Baruch's statistics show that the use of ice, to reduce high temperature in pneumonia, typhoid, and sunstroke (especially in the latter) may in unskilled hands seriously increase the mortality rate.

In the construction of hospitals, it would be a great advantage if the bathroom and plumbing plans could be revised by an architect familiar with the needs of modern scientific hydrotherapy. Then, with proper instruction of nurses, it would be possible to get the service in this matter that doctors and patients have a right to expect.

STILLMAN: "PARACELSUS"

Paracelsus, His Personality and Influence as Physician, Chemist, and Reformer. By John Maxson Stillman. 184 pp. Illustrated. Chicago and London: The Open

Court Publishing Company. 1920. Price $2.00.

To any one interested in the history of medicine or the study of biography, this little volume is commended. Theophrastus Bombastus von Hohenheim, better known as Paracelsus, was born in 1493, one year after the discovery of America, in the little town of Einsiedeln in that part of Switzerland which was then a part of the German Empire.

His true standing as a physician, teacher, and scientist has been a subject of controversy for 400 years. By his friends and disciples, he has been extolled as a skilled physician, a wise teacher, a great reformer, a sincere, pious and unselfish man. On the other hand, his enemies have represented him as an ignorant egotist, a charlatan, a drunken braggart, a superstitious visionary.

From his own writings and from the mass of evidence on both sides, Professor Stillman has sifted what is probably as fair a portrait of this medieval physician as is possible from such a welter of both praise and vituperation. He was probably neither saint nor villain. Much that he wrote seems to us fantastic and superstitious, but, we must bear in mind that he lived in an age when alchemy and astrology were considered sciences, and when fire, air, earth, and water were considered the elements of all things. No science is born full-fledged, and alchemy with all its superstitions was the mother of modern chemistry, while astrology, which led to our science of astronomy, has its devotees even in our own so-called enlightened age. In Paracelsus' day any one who dared lay rude hands upon the orthodox beliefs which passed for science, was sure to draw down upon himself the wrath of the universities, the church, and the medical profession; that is probably the explanation of the abuse heaped upon him.

As giving an insight into the state of science, four centuries ago, this little book is of surpassing interest.

"YEAR-BOOK OF ANESTHESIA AND ANALGESIA"

The American Year-Book of Anesthesia and Analgesia. F. H. McMechan, A. M., M. D. Editor. 1917-1918. New York; Surgery Publishing Company. Price $10.00.

The American Year-Book of Anesthesia and Analgesia (copyrighted January 1921) covering the advances in these subjects during 1917-1918, is just at hand in its de-luxe format, making as much of a typographical as a scientific appeal. Delayed in publication by the World War, it contains those methods of anesthesia and analgesia introduced to expedite military surgery, which are to find a place for themselves in civilian practice for the benefit of all concerned.

Again the editor of the Year-Book has tried to make it appeal to all the progressive members of the allied professions and specialties, who, in any way, are vitally interested in current advances in the science and art of anesthesia and analgesia.

The Year-Book, as a cumulative encyclopedia, provides the anesthetist, specialist, surgeon, dentist, research worker and hospital superintendent with those special advances that meet their individual requirements.

Fundamental studies in the pharmacophysiopathology of anesthesia and analgesia, of exceptional merit, have been included and, as many of them have a direct bearing on the clinical handling of patients submitting to operations under narcosis, they are doubly significant and valuable.

All pertinent phases of the science and practice of anesthesia and analgesia, during 1917-1918, have been covered in collated papers and researches from the most prominent international authorities and the Year-Book is again a comprehensive and exhaustive postgraduate course. To those interested it is not a luxury but an everyday necessity as a reference volume.

Aside from series of contributions on complicating and safety factors of anesthesia, acidosis, blood changes, blood pressure variations, pharmacophysiopathological studies both in general and local anesthesia, methods of technic, especially those developed in war surgery and the newer methods of local analgesia in surgery dentistry and the specialties, the Year-Book contains a Cumulative Index of the Pertinent Literature for 1917-1918, which is invaluable to anyone making a study of any phases of these subjects and needing the necessary bibliography for reference or teaching.

Condensed Queries Answered

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report their results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

Answers to Queries

QUERY 6559.—"Hydronephrosis?" C. W. I., New York, asks: "Will you please try to help me with a peculiar case that I have? The patient is about 45 years of age, is a lawyer and was a very studious one. He says he was accustomed for some years to hold back from urinating. I have been attending him for about four years. He used to complain of a sensation, not really of pain but of pressure, on the left side of the head and used to turn around to the right rapidly to 'receive the pressure.' He also complained of pressure in the left side in the region of the kidney. The main thing he wants to know now is, the reason why, after urinating, his 'heart seems to give out' and the circulation seems to be 'blocked in the kidney'. I am satisfied that he has a surgical disease of the kidney—hydronephrosis or possibly tuberculosis. He is pretty thin but his face does not suggest tuberculosis anywhere.

"He is peculiar. Refuses to have a Wassermann, to have an x-ray photo taken of his teeth, to go to a hospital, even, to have an examination made of the kidney and ureter by x-ray. The last time I examined his urine it was all right; clear, with no albumin or sugar and of normal specific gravity.

"After urinating, his heart seems to give out and the circulation seems to fail or be blocked in the kidney or from entering the kidney. His kidney is movable. If you can tell me why these phenomena occur, I shall be much obliged to you.

"This patient is an old friend of mine. He is quite peculiar or I would have dropped his case long ago as it is impossible to get him to do as I want him.

"The kidney drops down (may be it is the spleen) after he urinates. The point is that, after urinating, his heart seems to give out. He has to lie down and place a pillow under his back towards the left side; his circulation then is weak everywhere."

Statement from Patient: "Kidney, when full of water, is apparently in normal shape and position, and circulation of blood practically unimpeded. When emptied, circulation of blood is suddenly choked off. Necessarily, kidney must then have suddenly changed its shape and position in such manner as to block circulation of blood either to the kidney or in the kidney. What condition of kidney can cause that trouble? Has it shrunk so that it is all right when full but pulls the renal artery out of line when emptied, and thus prevents blood from entering kidney? Or, has the organ distended abnormally so that, when emptied, it collapses irregularly and in pockets so as to entangle blood vessels and block circulation inside the kidney? It cannot be just a lesion; for, a lesion would block the circulation all time. There must exist a change of shape and position."

It would be safe, the writer thinks, to entirely ignore the patient's theory, namely, that the kidney, "when full of water, is apparently in normal shape and position and circulation of blood unimpeded, but when emptied, circulation of blood is suddenly choked off."

It is quite possible, of course, that you have to deal with a hydronephrosis, the urine accumulating in the renal pelvis and calices as fast as it is secreted. Gradually, the renal pelvis dilates and the urine, continuing to be secreted, compresses the renal substance, disturbing both the nutrition and the secreting capacity of the parenchyma, and rendering the stroma anemic. Gradually, under the influence of the compression and degeneration of the renal vessels, which are pressed upon by the sac pushing forward

as it distends, the kidney structures undergo the changes of interstitial nephritis. If the distension and compression continues, the kidney is changed into a large fibrous cyst, with a series of pouches representing the calices, and separated by thin septa walls. The relative degrees of the involvement of the pelvic calices and kidney structures vary in each case, the extreme type being comparatively rare.

Unfortunately, the opposite kidney is apt to present a low-grade nephritis.

In all cases, the urine must be very carefully examined.

The subjective symptoms in such cases are minimal. The first thing to call attention to the condition may be, a bulging in the ileocostal region. This tumor is usually first observed in the loin but is sometimes distinctly abdominal from the beginning.

Cystoscopy will show one of the ureters blocked, or weak and delayed jets may be observed, which do not recur in the same rhythmic succession as on the healthy side.

The tumor may give rise to certain pressure symptoms, chiefly due to compression of the lungs and heart caused by the tumor pushing upward against the diaphragm, or of the compression of the colon due to forward and downward extension of the enlargement. In some cases, particular symptoms become so prominent as to justify the description of special types of the disease. Pain, for instance, is not a prominent symptom in ordinary cases, but severe attacks of abdominal pain and renal colic are observed in the intermittent type. The pain is chiefly due to the distension of the pelvis. When the distension is relieved, the pain disappears. However, if we have a distinct distension of the kidney, the amount of urine voided is materially reduced and pain is complained of. Later, the amount of urine voided increases to, and sometimes becomes considerably above, normal, and the kidney materially decreases in size.

It is, of course, very essential to ascertain: the cause of the obstruction; (2) the presence of compensatory hypertrophy; (3) the unilaterality of the hydronephrosis; (4) the liability to infection; and (5) the possibility of surgical relief.

As a rule, patients can go on for years with a hydronephrosis of moderate size; but, there are always dangers, i. e., rupture (intra- or retroperitoneal), complete anuria, infection leading first to uropyonephrosis, and ultimately to pyonephrosis.

The treatment of hydronephrosis is chiefly surgical, i. e., (1) ureteral catherization, (2) puncture, (3) nephropexy, (4) operation to restore the ureter, (5) nephrolithotomy, (6) nephrotomy and (7) nephrectomy.

First, Doctor, ascertain whether or no you have a true hydronephrosis to deal with. If you have, refer your patient to a thoroughly competent G-U man and arrive at a decision as to the advisability of operation.

* * *

Later, our correspondent wrote and asked us to tell him definitely, if possible, the meaning of one particular symptom, i. e., "the feeling of weight and weakness and dragging down in the left kidney after urination, accompanied by a slowing down of the heart." (2) The meaning of the phrase "Dietl's crisis;" to which we replied:

We sincerely wish we were able to tell you definitely the meaning of the one particular symptom to which you refer, i. e., the feeling of weight and weakness and dragging down in the left kidney after urination, accompanied by a slowing down of the heart. It would be easier to offer a rational explanation were one familiar with the exact conditions which obtain, i. e., if one knew definitely whether there *is* a hydronephrosis or merely a nephroptosis. Of course, we are aware of the fact that a hydronephrosis frequently presents in a prolapsed kidney, but in by far the greater majority of cases the sense of weight and dragging is experienced by the patient when the kidney is *distended* and, as a rule, relief is experienced when the retained fluid is voided.

If a hydronephrosis obtains and the sensations of which your patient speaks really occur after voiding urine, we must regard this as a case of intermittent hydronephrosis, caused probably by a movable kidney kinking the ureter. As you are aware, in tapping the abdomen, it is unwise to draw off *all* the retained fluid. As the entire collapse of the viscera may be followed by shock, so it is conceivable that a certain degree of shock may follow the sudden emptying of a distended kidney. Naturally, one would expect the circulation in the organ to be impeded by distension

and materially improved as soon as this condition is relieved.

However, in this particular case, a reverse condition may obtain and a sensation of weight and dragging, with reflex cardiac disturbance, follow evacuation of the kidney contents.

As we have already stated, one can only venture vague conjectures upon this point, but a thorough cystoscopic examination of your patient, with, possibly, injection of bismuth into the renal pelvis and a subsequent radiograph, would afford definite information.

You do not state that you have ever been able to detect a tumor, neither do you tell us whether or not the pulse rate is really reduced or if there is merely a feeling of the heart slowing down; nor do you tell us whether this sensation is experienced after each urination or only at intervals. If, for instance, a less amount of urine than normal is voided for one, two or more days and then a copious flow occurs, followed by the sensations described, the existence of a hydronephrosis would be almost proven.

As this patient has had no chill and is in good physical condition generally, we should be inclined to negate the possibility of tuberculosis of the kidney. However, in order to have solid ground under one's feet and to do anything for this man, it is absolutely necessary that a definite diagnosis be made. We therefore once again urge upon you the desirability, indeed, the necessity, of insisting upon cystoscopic and radiographic examination.

Dietl's crises are observed in connection with the movable kidney (nephroptosis) but occur nearly always in women and on the right side. The attacks are characterized by pain, chill, nausea, vomiting, fever and collapse. In some subjects, these attacks recur at intervals for months or years. Any sudden exertion, an error in diet, or even standing for a long time, may precipitate an attack. There is little reason to question the conclusion that Dietl, himself, arrived at—namely, that these attacks are due to a kinking or twisting of the renal vesels or of the ureter. In nearly all these cases, the enlarged kidney may be felt and is extremely sensitive to pressure. Then, the amount of urine voided increases rapidly, the persistent nausea and local tenderness abate and, within ten or twelve hours, all the symptoms may disappear. Occasionally, the urine may be scanty or even bloody.

In some of these cases, as you are aware, great relief is experienced by the wearing of a properly fitting abdominal bandage and air-pad. However, it is doubtful whether any pad can really "hold the kidney in place."

We hope you will report the outcome of this case; of course, providing that the patient will submit to thorough examination.

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QUERY 6560.—"Green Stools in Infancy." F. D. E., Iowa, asks if the sulphocarbolates are suitable for administration to small babies whose stools are green.

Perhaps the most abnormal color of infants' stools is green, the shade varying from a delicate light grass-green to a dark spinach green. The darker the green, the greater its significance. A very light grass-green coloring and otherwise normal stool is of practically no importance, and a change from yellow to light green after the stool has been passed cannot be considered as abnormal. The green color, in most instances, is due to the change of bilirubin to biliverdin, and it is probable that such change is due to either excessive acidity or alkalinity of the intestinal contents, or to the presence of some oxidizing ferment.

The green color is not characteristic of any special type of disease, though, in rare instances, it may be produced by the action of the bacillus pyocyaneus. In such cases, the addition of nitric acid decolorizes the stool.

Where, then, we merely have greenish stools or green spots in the stools, it is desirable to administer very minute doses of calomel, together with sodium bicarbonate; or magnesia may be employed in alternation with sodium sulphocarbolate, gr. 1-6 to 1-2 every three hours. The writer is particularly fond of this formula: calomel, gr. 1-16, sodium bicarbonate, gr. 1-4, emetoid, gr. 1-128, bismuth subnitrate, gr. 1-2—one such dose every hour till four have been given. Rhubarb and magnesium compound is also extremely useful; a tablet is obtainable which contains: rhubarb, gr. 1, magnesium carbonate, gr. 1, sodium bicarbonate, grs. 3, cardamom, gr. 1-8, oil peppermint, q. s.—one-fourth to one-half tab-

let being given every two or three hours for three or four doses.

It is generally desirable, also, to reduce the amount of fats in the food; that is to say, to give modified milk or milk and barley water for a day or two.

The general condition of the child must, of course, be considered and only the doctor in attendance can intelligently prescribe further.

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Query 6561.—"Who Cured the Patient?" J. B. T., Canada, was called to see a man "getting over the mumps." He complained only of a bad pain in his head and the swelling was rapidly subsiding. As there was some smallpox in the district, the doctor thought perhaps he might have been exposed. He gave calomel, gr. ½, repeated four times, with saline next morning. Also the usual aspirin, phenacetin and caffeine citrate tablet. In addition, he gave tablets of calcium sulphide, gr. 1, every two hours. "He was," our correspondent states, "some better the next day, or so they told me over the phone. The following day, as his headache continued, I sent out a mixture of sodium bromide (grs. 10) to be taken every four hours. The next day I saw him at noon and made up my mind I was dealing with the cerebral complication of mumps and prescribed the following: calcium sulphide, gr. 1-3, every half-hour for ten doses, then hourly; aconitine, gr. 1-800, hourly for three doses; then every three hours; echinacoid, gr. ½, hourly; urotropin, grs. 5, four times a day. Also, ice was applied to head and heat to feet. The next day, I learned that another doctor was called in and that he amputated an elongated uvula. I might say that I had examined patient's throat on my first visit and, except for an elongated uvula, slightly congested, nothing more was to be seen. The patient had intermittent attacks of fever, not exceedingly 102° when I saw him, with pulse about 86. Forehead was exceedingly hot and head felt sore to touch; otherwise rest of body was not flushed or feverish.

"As far as I can understand, the other doctor's amputation of uvula was a 'grandstand stunt' and I feel that the medication I gave him is what really is controlling the condition. Am I right?

"Two weeks before, the patient said, when the mumps first came he had a slight sore throat which passed off in a day or so, but he had no complaint to make when I examined the above and noted only a long uvula. Might say that patient's temperature on the evening following the amputation went to 103°, so I have been informed. As this is my first case of mumps with cerebral complication, would ask your advice on the foregoing. I understand that the patient is progressing favorably. Kidney function normal."

Frankly, we cannot but consider that any improvement in the condition of the patient you had under treatment, which followed the amputation of the uvula, is more likely to be due to prior medication than the operation itself.

The removal of an elongated, slightly congested uvula might impress the patient and his friends, but we can not believe it would relieve the train of symptoms which you describe as having existed. Indeed, the fact that the patient's temperature on the evening following the amputation went to 103° might have led some individuals to change physicians again and, if the third professional gentleman had removed a wart from the back of the left hand and the patient had subsequently recovered, there is not the slightest question that he would have received credit for the "cure."

However, many experienced surgeons hesitate to undertake even slight surgical operations in acute fever cases; for fear of causing rapid extension of the bacterial infection through the blood and lymph paths.

The longer we practice medicine, the more we realize that, now and again, in order to accomplish our ends (and maintain the status quo), it becomes necessary to impress the patient and those about him with our superior ability. To do this, we should snip off something or pull something out—at any rate, do some thing which is apparent to even the meanest intellegence.

However, you can congratulate yourself upon having satisfactorily disposed of what might have proven a troublesome case; for, cerebral complications following mumps are very apt to prove extremely rebellious to treatment. Not infrequently, the patient passes to the land where parotids cease from troubling, despite every effort of his physician.

We shall remember the fact, when these symptoms threaten, that it is a good idea to snip off the uvula. Perhaps your confrère

explained to the patient that, by so doing, he "drained the cranium above and so averted inevitable disaster." If he didn't do so, he missed an opportunity.

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Query 6562.—"Ataxic Paraplegia." C. B. S., Missouri, asks us to "send literature on and suggest treatment for disseminated sclerosis or ataxic paraplegia." "Does orchitic extract have any influence here?"

We regret extremely that we are unable to send you literature on ataxic paraplegia, or even suggest an effective treatment for this condition. We do not believe that orchitic extract could exert any influence.

Ataxic paraplegia (posteriolateral sclerosis) results from combined disease of the posterior and lateral columns, and such sclerosis obtains in (1) primary ataxic paraplegia; (2) Friedreich's ataxia; (3) spinocerebellar ataxia; (4) syphilis (e. g., Erb's syphilitic spinal paralysis), pellagra, and ergotism.

In ataxia paraplegia (rarely a primary disease), the first symptoms are observed in the legs; namely, stiffness, unsteadiness and rapid fatigue; later, the arms are affected, the deep reflexes increased: there is weakness, incoordination (increased on closing the eyes), the gait is reeling and the legs kept wide apart. Sensation is normal, as are the pupils, and the sphincters are normal or affected late. Subacute combined degeneration of the cord is a disease of later life, characterized by severe anemia, together with sensory and motor symptoms due to combined degeneration of the posterior and lateral columns of the cord. Females are more frequently affected than males, but the condition is rarely observed under forty.

The onset is insidious, numbness and tingling in the legs are complained of; general weakness, incoordination, spasticity and increased reflexes; namely, knee-jerks increased, ankle-clonus present, and extensor plantar reflex. Spastic paraplegia develops rapidly; patient is unable to stand, rigidity is marked. Anesthesia commences in legs, descends rapidly, loss of pain preceding that of touch sensation. Girdle pains and lightning pains in legs may occur. Finally, flaccid paraplegia replaces the spasticity. There is rapid wasting, loss of control in sphincters; anesthesia increases. The upper extremities may be affected; edema is common.

The duration of the disease is from a few months to two to six years. The final stages are rapid, and death results from exhaustion, cystitis, bed-sores ,and cardiac or respiratory failure.

The treatment is that, for pernicious anemia, with general treatment for nervous changes, preventing bed-sores, cystitis, etc.

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Query 6563.—"Obscure Dermal Lesion of Pregnancy." I. E. C., Ontario, presents the case of a woman, aged thirty, pregnant for the fifth time, who, during the fourth month of gestation, developed a small papule on the bridge of her nose just below the level of the eyes. In a few days, ulceration occurred which spread to about the size of a ten-cent piece. Treated with zinc oxide ointment, a degree of healing took place in the center but the whole nose became swollen and covered with yellowish crust, which, if removed, left a raw area with some bleeding. Treatment seemed to be of no use. X-ray applications were advised but patient refused. At term, the nose was about twice the normal size. Three weeks after birth of a normal child, the condition had entirely cleared up without any treatment. A small scar at the site of first ulceration still remains.

The patient has a large scar on the radial side of the right forearm which resulted from a sore that developed about the fourth month of her second-last pregnancy; resisted all treatment but healed spontaneously within a few days after birth of the child. The woman enjoyed good health throughout. Uranalysis negative. A Wassermann was not done, but the patient has five normal children and has had no miscarriage. To what was the condition due?

As we understand it, the papule upon the nose of your patient, which subsequently ulcerated, made its appearance during her fifth pregnancy—the fourth month of gestation. The lesion persisted, despite treatment with zinc oxide, etc., until three weeks after the birth of a perfectly normal child; when it cleared up without any further attention.

We also understand that a scar on the radial side of the forearm marks the site of a similar sore that developed about the fourth month of a prior pregnancy. We understand that no Wassermann test has been made in this case and that there is no evidence of the existence of tuberculosis.

Under the circumstances, it is practically impossible for one to venture a diagnosis,

but it is reasonable to assume that, at about the fourth month of gestation, some toxin is developed in the system which causes the production of a lesion at some point of least resistance. It would be interesting to know if this woman wears glasses and whether or no the scar upon the forearm is at a point where irritation of the skin might have resulted from tightly rolled-up sleeves.

Naturally without a very careful study of all the conditions and of the patient herself, one can only venture conjectures either as to the cause or of the nature of the sore itself. It is unnecessary, of course, to point out that pregnant women may develop dermatoses of various kinds, which generally clear up shortly after delivery.

In this case, it would certainly be wise to ascertain definitely the presence or absence of syphilis or tuberculosis.

YOUR HYPODERMIC SYRINGE

Although some may be unaware of it, the hypodermic syringe has undergone important changes for the better in the last decade or two. The syringe of the sixties is not the instrument we are using today; thanks to the ever productive genius of invention, we have something decidedly better for our present work than the old-style syringe of the metal barrel and the packed piston.

This type has been discarded, at least by the more progressive in the profession, in favor of the all-glass syringe of the Luer type. This instrument has several advantages too obvious to dispute. In the first place, its construction is the simplest imaginable. It consists of two pieces only the barrel and the piston rod. Both pieces are of ground glass, with readings etched on the surface of the barrel. One can see the fluid plainly as it is drawn in. There is no sticking of the plunger; no leakage; the flat edge on the finger guard prevents rolling. The instrument will stay where put when laid down in a hurry, as it often is in the course of a surgical operation. True, the Luer syringe is to some extent liable to breakage, but, with reasonable care, loss from such accident should be inconsiderable.

Further in favor of the all-glass syringe, one may say that it is easier to keep clean and aseptic than the old-style syringe; chlorine solutions and others that properly should not come in contact with metallic surfaces may be injected with impunity by means of such an instrument. It is particularly suitable for applying the now-popular Dakin solutions.

It is being supplied with standard tips to take the usual hypodermic needles, as well as the new Lee-Furness pipettes, and with barrels of several capacities, ranging from 2 to 20 mils (Cc.). The 2-Cc. capacity is suitable for general use and the 5-Cc. for intravenous work.

WHEN TO USE PITUITARY EXTRACT

The anterior lobe of the gland, says Hutton (*Ill. Med. Jour., Dec.* 1920); through its hormone presides over muscle tonus, skeletal growth and sexual development. If it is inactive prior to puberty, the person affected will have small hands; his stature will be short; the genitalia will be small; and he will lack masculinity. Usually, the temperature is subnormal, the pulse slow and the blood pressure low. A preparation of its hormone is indicated in children and youths showing Frohlich's ,syndrom and other signs of retarded development, especially affecting the sexual organs, with features resembling the eunuch; also in adults lacking normal virility.

The posterior lobe plays a part, along with the thyroid, in regulating metabolism. It also maintains tonus of involuntary muscles, as, the arteries, intestines and uterus. Deficiency of its secretion gives rise to mental apathy, atonicity, adiposity, debility, low blood pressure, arythmic or quickened pulse rate and heat flushes. By giving an extract or solution of the gland, one can amplify and slow the pulse and increase arterial tension. It is useful in runaway heart, especially in infectious diseases. But its chief use to us is, to excite uterine contractions in labor and to arrest postpartum hemorrhage. For these purposes, a solution given hypodermically is said to serve better than adrenalin, in that the effect is longer sustained. However, it should not be given where abnormal thinness of the uterine wall is suspected; nor in arteriosclerosis; nor in the early stage of labor. Other uses for pituitary extracts are: shock, enuresis, dysuria, diabetes insipidus, meteorism; intestinal atony; metrorrhagia; among others.

Many of the Worst Diseases Begin in the Kitchen

It is now definitely established that many toxic conditions affecting the alimentary canal have their origin in the frying pan or the cook pot.

The indol, skatol, indoxyl and other toxic compounds produced by putrefactive fermentation of the proteid molecule in the intestinal canal may be the chief predisposing cause of diabetes, nephritis, or rheumatism, blood tension, neurasthenia, anemia, tuberculosis, and all forms of indigestion mal-assimilation and mal-nutrition.

One of the principal causes of this development is the use of animal fats which smoke at a relatively low temperature. Food cannot be cooked so readily, without burning.

The fat is absorbed into the food, and coats it over with an oleaginous layer. This naturally retards digestion and the proper transformation of the food elements.

When Mazola is used it is possible to develop a much greater degree of heat, because Mazola has a much higher smoking point than animal fats.

This intense heat sears over the surfaces of the food, and prevents the absorption of fat into the cells. Digestion and assimilation are improved, while under-oxydation and all the conditions caused by under-oxydation are greatly mitigated.

Food cooked in Mazola is much more appetizing and tasty, as all the rich juices are retained in meat, fish or chops cooked in Mazola.

Mazola is a 100% pure vegetable oil, and being already a fluid, is much more easily absorbed than is a semi-solid animal fat.

Mazola is a perfectly delicious salad oil, rich in lecithin and glycerophosphates. It should be recommended in all conditions of mal-nutrition, or where it is desirable to spare protein integrity.

Have your patients try Mazola as a cooking and a salad oil, Doctor, and see how much better they will function.

CORN PRODUCTS REFINING COMPANY
17 Battery Place, New York City

MAZOLA IS SOLD BY ALL GROCERS EVERYWHERE

News Notes Department

Farther on, in this number of our journal, readers will find a column or two of small classified advertisements. This section is worth reading, for possible suggestions, references, addresses and information that later may somehow be turned to profit. It will serve as a sort of business directory wherein advertisers in the space of a few lines tell what they have to sell or exchange. Many make known their wants here, as for salaried assistants, partners, etc. Locations are announced, new books and novelties brought to light, bargains offered those who need instruments and office equipment, which though used will serve another quite as well as the original purchaser. We repeat it, these little advertisements are worth reading.

The Nasal Syphon announced in this issue of our journal by H. B. Nichols, 145 East 35th Street, New York City, will interest many readers, we feel quite sure. The principle of irrigating the nasal passages, while utilizing a negative pressure or suction force, is a departure from appliances which operate simply and solely by direct pressure. The desirability of suction, as a force tending to secure cleanliness of these passages, is scarcely to be questioned. With a certain degree of suction one is better able to remove tenacious secretion, and inspissated mucus and adherent crusts; by the same token the deeper recesses are reached and evacuated and the mucosæ the more thoroughly cleansed, thus giving them a fair chance to overcome catarrhal features, with return to the normal condition.

The construction is simple, suction being attained by the outlet tube provided; the force may be regulated, since it is in principle proportionate to the vertical drop.

Disorders of the prostate which so frequently affect men after middle life, are difficult to handle as a rule. Such cases often resist non-operative treatment by way of massage and medicated suppositories, wherefore recourse to the knife appears unavoidable. But operations on the prostate, in view of the uncertain results had, coupled with the high mortality rate especially among the senile, may well cause one to hesitate.

What then is to be done, apart from the knife? The question comes up. An answer is offered by the Electro-Thermal Company, of Steubenville, Ohio, in the advertising pages of this journal. They have an Electrothermal

TESTOGAN — For Men

THELYGAN — For Women

Formula of Dr. Iwan Bloch

After seven years' clinical experience these products stand as proven specifics.

INDICATED IN SEXUAL IMPOTENCE AND INSUFFICIENCY OF THE SEXUAL HORMONES

They contain SEXUAL HORMONES, i. e., the hormones of the reproductive glands and of the glands of internal secretion.

Special Indications for Testogan:
Sexual infantilism and eunuchoidism in the male. Impotence and sexual weakness. Climacterium virile. Neurasthenia, hypochondria.

Special Indications for Thelygan:
Infantile sterility. Underdeveloped mammae, etc. Frigidity. Sexual disturbances in obesity and other metabolic disorders. Climacteric symptoms, amenorrhea, neurasthenia, hypochondria, dysmenorrhea.

Furnished in TABLETS for internal use, and in AMPOULES, for intragluteal injection.

Prices: Tablets, 40 in a box, $2.00; ampoules, 20 in a box, $3.00.

EXTENSIVE LITERATURE ON REQUEST.

CAVENDISH CHEMICAL CORPORATION

Sole Agents

220 West 43rd Street — *Established 1905* — New York

How I Treated My Own Child

(Name to doctors on request)

Fergus Falls, Minn., Nov. 5, 1920.

The Dionol Co.,
Detroit, Mich.

My 4 year old boy, Frederick, pulled the cord of our electric heater and tipped a pan of boiling hot water on his arm and hand. My wife used the best dressings she had but the poor boy found no relief. She could no longer endure to see him suffer so frantically with the pain, and phoned for me. I applied Dionol and in about 10 minutes the pain stopped, and there has not been any pain since.

This burn was very deep and of course we thought it would leave a big scar, but do you know there will not be a sign of one. It is all healed up and one would never know that he had been burned at all. We obtained all these results in less than 3 weeks. I never saw such results in all my practice. Me for Dionol every time. I am surely grateful that such a remedy is on the market.

Dr.....

Another Case

Philadelphia, Penn., Feb. 8, 1921.

The Dionol Co.

Within the past week I have had an opportunity to test Dionol in an aggravated X-ray burn case which was referred to me by a brother physician who had stopped his treatment owing to skin sensibility. I wish to compliment you on your splendid preparation. I have the burns under control and am now continuing treatment without fear of further inconvenience to the patient.

Dr.....

DOCTOR: Don't forget that Dionol gives equally positive results in local infections, wounds, leg ulcers and ulceration generally, and wherever local pyrexia is present. Try Dionol also for tampon treatments, hemorrhoids, etc. It is exceptionally effective.

THE DIONOL COMPANY

Dept. 20

Garfield Building **Detroit, Mich.**

Dilator for which strong claims are being made. It should be tried in obdurate cases. The company is sending out a 72-page booklet on the subject on request. The text sounds convincing.

Lobelia inflata on a straw vote cast by practitioners proved to be the most largely used botanic remedy today. The successes with Lobelia result from the pioneer work of those physicians who years ago blazed the trail. Whether accidental discovery or purposed scientific research, the answer is the same to the doctor of today who reaps the benefit.

Hats off to our pioneers in medicine. "There's a reason" back of Lobelia popularity and to realize all the full value of this important drug, one must keep step with the leaders. Ever since Jentzsch began his Lobelia studies in 1908, there have been scores and hundreds of physicians dependant on his product for results not possible with other drugs. Lobelia, Jentzsch, is a true vegetable antitoxin, we are told. Its value is therefore best seen in diseases of bacterial origin and the resulting toxemias.

We suggest you immediately obtain a box of ampules from The Botanic Manufacturing Company, 3846 Elston Avenue, Chicago, Ill., for your emergency bag.

Those who think only of injections, whenever a case of gonorrhea presents, have something to learn, and incidentally better results to attain. The proper treatment of such cases comprises more than that. Some dietary restrictions are necessary, with the view for instance of repressing urinary acidity secondary to a general condition of acidosis. A highly acid urine is likely to keep up irritation and turgescence through mere contact with the already inflamed urethral mucosa, thus militating against any good effects that might accrue from judicious local treatment, by irrigants or injections.

Internal remedies are of value when well selected and applied, as they should be concurrently with the local treatment. Schuftan reports excellent results from the use of Terogon in more than 200 cases. This is a combination of pichi, kavakava, lecithin and ethereal oil of chamomile. It comes from the laboratories of the Cavendish Chemical Co., New York. See their special trial offer in this issue.

The obligations of a nation in such times as the present do not end with the winning of a war. There are debts to liquidate, pensions to pay and wounded soldiers to restore to health or at least to a condition enabling them to support themselves once more in this world of toil, by one vocation or another. Some conditions of disablement are wellnigh hopeless at first glance. Schrapnel and gas have done lamentable things. Yet in our military hospital today such results are being attained, as in the sixties would have been described as miraculous and nothing less.

In this work of reclamation the consequences of gassing and shell shock on the nervous sys-

ACTIVE CATHARTICS OR PURGATIVES THAT PRODUCE A WATERY STOOL DO NOT GIVE GOOD RESULTS IN

Habitual Constipation

as the digestive secretions are carried off and a period of constipation follows until the secretions again accumulate and the natural process of digestion and assimilation is resumed.

A mild tonic laxative gives the best result and you can obtain this with **Cascara Comp. Tablets (Killgore's)**, as they stimulate the secretions, give an easy natural movement without griping and do not become ineffective by continued use.
Dose: One or two tablets at night.

Liberal Sample and Formula Sent to Physicians on Request

CHARLES KILLGORE

Manufacturing Chemist Established 1874

82 FULTON STREET NEW YORK

Serving Desire and Safety

Those who are convalescing, and those who are tending toward illness, often present a problem for the physician, in the matter of the meal-time drink.

To gratify the desire for the usual hot beverage will frequently contribute to a more cheerful and confident mental state. Yet the doctor realizes the necessity for safeguarding nerves and digestion.

In such situations a happy solution may be found in

Instant Postum

Made wholly from wheat and a small per cent of molasses—skilfully processed and roasted—this cereal beverage is free from caffein, is satisfying to taste, and has no irritating influence.

Instant Postum is prepared in the cup instantly by the addition of hot water—with sugar and cream to taste. Its convenience, wholesomeness, and moderate cost (at grocers) make it a valuable aid, when the doctor finds the patient would be better off without coffee.

Samples of Instant Postum, Grape-Nuts and Post Toasties for individual and clinical examination will be sent on request to any physician who has not received them.

Postum Cereal Co., Inc., Battle Creek, Mich.

tem are conspicuous. Many of these cases are being given electrotherapeutic treatment, the high frequency outfit known as the "military model" serving in a number of the hospitals. This apparatus is made by the H. G. Fischer & Co. of Chicago. It is advertised in our pages this month.

Attention is called to a combination of depurants which, according to users, gives very good results in chronic skin affections.

Elixir Iodo-Bromide of Calcium Compound with Mercury Bichloride presents in fluid form the combined features of a number of the most powerful alteratives which have long had a place in the pharmacopoeia, such as, chemically pure iodine, mercury bichloride, magnesium, potassium, calcium, sarsaparilla, stillingia, prickly ash, burdock, etc., not chemically united, but held in a uniform solution by an elegant menstruum which is a product of the Tilden Laboratory, of New Lebanon (N. Y.) and St. Louis (Mo.).

Samples are being mailed out.

Comparing the local anesthetics most frequently used, in the current Year-Book of Anesthesia and Analgesia, Sollman finds procaine and cocaine equally as efficient for injection intracutaneously. Beta-cocaine is only one-half as efficient; quinine-urea one-fourth.

The showing is interesting so far as it goes, but further, when considering the two best anesthetics, one must know that procaine is only about one-seventh as toxic as cocaine. Also, it is less irritating. That is why careful operators prefer it. As between the two, nobody mindful of the mishaps chargeable to cocaine, will hesitate a minute questioning which to use.

Procaine (introduced as novocaine by its patentees) is now made by The Abbott Laboratories, Chicago. They offer both tablets and ready-prepared solutions in ampules. Those interested should write for the new 1921 price list now being mailed out by the company. An 18-page booklet covering the application of procaine in minor surgery is also available on request.

It is quite possible that much of the success of French products in America is due to the attractive way in which they are presented to the purchaser, and pharmaceutical products are no exception. In the matter of samples, however, French thrift comes to the front and it often happens that, altho done up in an attractive package, the samples are so small in quantity that they are of little value for trial purposes.

A contrary policy is pursued by the J. K. Mills & Co. who are introducing the French product Purific (Medicinal) to the American medical profession. A request for samples from this firm brings promptly, a handsome black case which when opened up reveals a two ounce bottle of their concentrated liquid (Purific Medicinal), a large jar of their ointment

MEAD JOHNSON & CO
MEAD'S D-M
DEXTRI-MALTOSE
EVANSVILLE, IND.

Infant Feeding *Diet Materials*

THE DOCTOR'S METHOD OF FEEDING INFANTS

MEAD'S DEXTRI-MALTOSE is DEXTRINS and MALTOSE—just as the name implies.

Moreover, it is DEXTRINS and MALTOSE WITHOUT DIRECTIONS printed on the package.

"D-M" is furnished with POTASSIUM BICARBONATE, or with SODIUM CHLORIDE. Also furnished PLAIN in order that the Doctor may prescribe any other food salts desired.

THE USE OF "D-M" MEANS INDIVIDUAL INFANT FEEDING.

The Mead Johnson Policy

MEAD'S DEXTRI-MALTOSE is advertised only to the medical profession. No feeding directions accompany trade packages. Information regarding its use reaches the mother only by written instructions from her doctor on his own private prescription blank.

16 oz. in every package—MORE FOR LESS, NOT LESS FOR MORE

Full literature and samples on request

MEAD JOHNSON & COMPANY
EVANSVILLE INDIANA, U.S.A.

EFFECTIVE ANTISEPSIS
+
STIMULATION OF REPAIR

A New Agent in the Treatment of Septic Wounds, Ulcers, Eczema, Etc.

PURIFIC (Medicinal)

A NOTABLE ANTISEPTIC DEVELOPED IN THE FRENCH WAR HOSPITALS

Most so-called antiseptics are merely germ destroyers. Healing takes place following their use solely to the extent that the tissues themselves are able to effect repair. Often the tissues are weak and devitalized, and though sepsis is controlled, are unable to accomplish repair. Healing is slow and unsatisfactory. PURIFIC is not a potent anti-bacterial agent, but it is also a pronounced stimulator of the healing processes of injured tissues. This is due to its special capacity for increasing the dynamic and reconstructive action of the cells of a wound. Sluggish wounds and ulcers that respond to no other treatment, undergo rapid healing and cicatrization following the systematic use of PURIFIC.

PURIFIC was devised by a French surgeon under Government auspices during the war, to meet the need for a true emergency antiseptic that would not only inhibit germ growth without toxic or irritating action, but also would promote healing to the greatest possible degree.

The results from PURIFIC were remarkably satisfactory. Not only were septic processes controlled promptly, but an impetus was given to tissue reconstruction and repair that excited the surprise and interest of the profession generally.

PURIFIC is based on the latest discoveries and principles of pharmaco-dynamics, and owes its capacity to arrest germ action, as well as to repair and rebuild injured tissue with surprising rapidity, to its power to influence the ionic or electric activities of bacteria and the cells of wound tissue.

PURIFIC is not a coal-tar derivative, is free from caustic action, and has neither color nor odor.

CLINICAL REPORT

Hackettstown,
Case of Mrs. H— New Jersey.
White, age 70, Occupation—
Housewife

Mrs. H— stated that for the last thirty years she had been a sufferer from varicose veins, and during this time has had as many as 20 or 25 ulcers of the feet and ankles. The writer was called to see her on December 7, 1920, at which time she was suffering from a varicose ulcer of the left foot. The ulcer was about size of a quarter, very sore and painful, and surrounded by considerable redness. It was discharging a thin offensive pus.

Advised cleansing of the wound with normal salt solution, after which "Purific" Pommade was ordered applied morning and evening.

On December 11—four days later—the ulcer had nearly healed, and was well covered with healthy granulations. On December 14 the ulcer was entirely healed. Mrs. H— says that in all her experience with this trouble she has never had an ulcer healed so quickly.

Dr.....
(Physician's name furnished on request)

The price of PURIFIC MEDICINAL CONCENTRATED is so based that the amount contained in a 4-oz. bottle of five per cent. solution will cost but five cents when purchased in quart (32 oz.) bottles. The physician makes his own dilutions. A ten per cent. solution is used for primary cleansing irrigation, followed by wet dressings of five per cent. solution. The results leave nothing to be desired. PURIFIC is also put up in ointment form as Purific Pommade.

If you have a case involving a stubborn, suppurating wound, write or in case of emergency, telegraph at our expense and a sample will be forwarded gratis. Prices and full information on request.

Telephone:
WORTH, 908

J.K. MILLS & CO.

280 BROADWAY
NEW YORK

Laboratories:
Levallois-Perret (Seine)
Hackettstown, N. J.

(Purific Pommade) and a minim graduate with which to facilitate the making of dilutions. In a pocket at the back of the case is a booklet giving the ingredients of their product and the reason why each is used in accordance with the recent European theories of pharmacodynamics on which the compounding of Purific is based.

Speaking of the generous quantity of this sample and the motives which induce them to send them out gratis on request. Mr. Mills stated that he considered that if any physician took the trouble and interest to investigate a new product, he was certainly entitled to have his experiments made easy for him by obtaining an ample supply of the advertised preparation, so that he would not run short in the middle of the treatment of a case, especially when the trial was being made on chronic ulcers or eczemas of long standing where of course a complete cure is not to be expected with only a few applications.

Although hemorrhoids are easily disposed of by a deft operator, under local anesthesia, many people absolutely refuse to submit to knife or cautery. It then becomes a task for the doctor to relieve by topical applications the distress which piles impose. Of such applications one of the oldest and most convenient in use is the suppository; carrying astringent and analgesic drugs, which in this oleaginous vehicle are slowly and steadily released to the affected mucosa, very satisfactory results may be expected from such a form of treatment, when well selected.

Propaesin Suppositories, which are offered by the Ernst Bischoff Co., 81 West Broadway, New York City, are said to be very effectual for piles, fissure and other rectal defects, including pruritus ani. They are sold in boxes of ten. A trial quantity may be had on request.

Of all stubborn ailments that one can recall eczema is certainly not the least. Every doctor, if only a single year in practice, has been called to meet it, at times to conquer it, but more often to claim no particular success if indeed not acknowledging complete failure to deal with it.

There are remedies, aplenty of them, recommended in the standard texts. But taken as they come, they can scarcely be accredited with anything like consistency of action or certainty of results. The prescriber, therefore, is forced to cast about, to try one after another, to experiment with many, hoping all the while for success in the case in hand.

A remedy-combination of value, according to users, is that offered by the Chicago Pharmacal Co., under the name of Zematol. This is an ointment for topical application. It is said to relieve the itching which so frequently is one of the troublesome symptoms of this skin affection, and in indolent cases to stimulate healing.

A good saline, as for example epsom salt purified, partially dehydrated and made palat-

A SHORT CUT TO RESULTS

To administer iron or arsenic or phosphorus by the mouth is not the way to secure prompt and satisfactory therapeutic action and effect.

The hypodermic injection of such medicaments is rapidly coming to be employed by progressive physicians.

Serum Ferrugineux (Fraisse)

supplies iron, arsenic, phosphorus and strychnin in absolutely non-irritating form, rapid in action and decisive in results.

Serum Neurosthenic (Fraisse)

supplies phosphorus, arsenic and strychnin without the iron. The steadily increasing use of these two products of one of the most scientific and reliable of French Pharmaceutical Laboratories, is best evidence of their practical value, reliability and dependable service.

Sample and Literature on request

E. FOUGERA & CO., Inc., 90-92 Beekman St., New York

STEARNS QUALITY FOUNDED 1855

ESTEROL

(BENZYL SUCCINATE, MEDICINAL)

THE IDEAL FORM OF BENZYL MEDICATION

A 5-Grain Tablet made from a Snow-White Tasteless, Odorless, Crystalline Product.

For the treatment of Dysmenorrhea, Dysentery, Diarrhea, Hiccough, Angina Pectoris, Biliary Colic, certain forms of Asthma and where a Positive Non-Depressent Vaso-Dilator and Anti-Spasmodic is indicated.

It does not nauseate or cause other intestinal disturbances when given in large doses or over considerable periods of time.

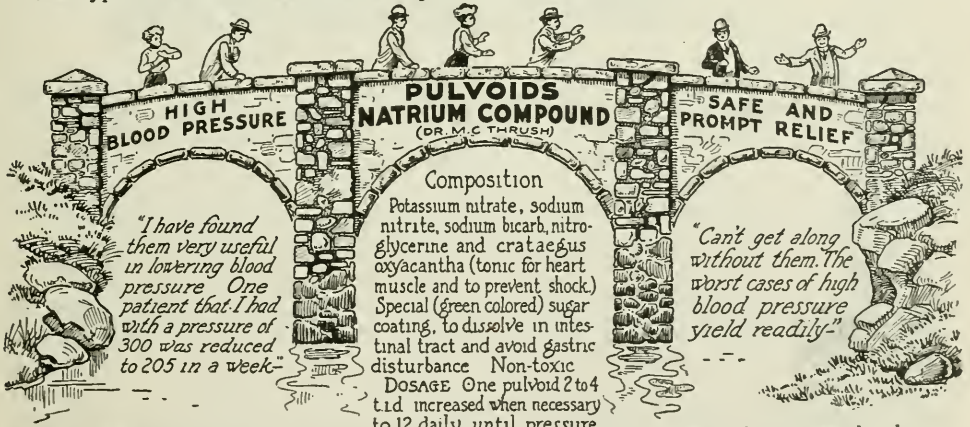
SUPPLIED IN BOTTLES OF FORTY 5-GRAIN TABLETS.

Samples and Literature on Request

MANUFACTURED ONLY BY **Frederick Stearns & Company** DETROIT U.S.A.

High Tension — Bridge To Safety

A noted heart specialist says "Pulvoids Natrium Comp. will quickly and safely bring about the reduction of the (high blood) pressure and keep the patient safe" until the basic cause of the hypertension can be corrected by indicated treatment.


HIGH BLOOD PRESSURE
PULVOIDS NATRIUM COMPOUND
(DR. M. C. THRUSH)
SAFE AND PROMPT RELIEF
"I have found them very useful in lowering blood pressure One patient that I had with a pressure of 300 was reduced to 205 in a week"
Composition
Potassium nitrate, sodium nitrite, sodium bicarb, nitroglycerine and crataegus oxyacantha (tonic for heart muscle and to prevent shock) Special (green colored) sugar coating, to dissolve in intestinal tract and avoid gastric disturbance Non-toxic
DOSAGE One pulvoid 2 to 4 t.i.d increased when necessary to 12 daily, until pressure reaches normal, then reduce dose
"Can't get along without them. The worst cases of high blood pressure yield readily"

Special Cash-With-Order Trial Offer to Physicians and Hospitals Only

200 for $1.00, one time only, or 1000 for $5.00 cash on 60 days' trial, money back if not satisfied.

Trade package, 100 for 75 cts.

Canada, 200 for $2.00, duty and postpaid.

Write for free 32-page brochure on high blood pressure M. C. Thrush, Ph. G., Ph. M., M. D. If you dispense, ask for price list.

Canadian Distributor
R. L. GIBSON
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Manufactured solely by
THE DRUG PRODUCTS CO., Inc.
Pharmaceutical Chemists
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able, is far more useful than the average doctor suspects, useful in the winter as well as the summer, useful all the year from the first month to the last. Such a preparation is Abbott's Saline Laxative.

One usually thinks of it as a means for ridding the bowel quickly of irritating or ptomaine-like ingesta. But this is only one of its uses. Abbott's Saline Laxative is an excellent initial purge in fever cases generally. In these cases the first and great thing is to provide for proper elimination; nor is the need for elimination confined solely to fever states. Indigestion symptoms socalled and many others no less distressing are due indirectly or reflexly to a loaded colon, and decomposition of collected residues into toxic bodies.

A saline too may be employed frequently to assist and facilitate the action of remedies, through elimination. It is thus a sort of key to results not otherwise attainable.

The prostatic cases occurring in the routine of medical practice are among the most unresponsive of the ailments the doctor is called upon to treat.

From the surgical angle, they are perhaps even more trying. The mortality is rather high. The operation is a serious one. The prospect for the patient is anything but bright in most of the cases. Consequently, the doctor hesitates to recommend the surgical recourse, especially for elderly men, so many of whom succumb to uremia if not hemorrhage. In this

TEROGON

A New Antigonorrheal for Internal Administration

COMPOSITION

Extract of Pichi-Pichi	75.
Extract of Kawa-Kawa	14.5
Lecithin	5.5
Ethereal Oil of Chamomile	0.01

Used by Dr. **Adolf Schuftan** with good results in over 200 cases.

Send for

"9 Reasons"

why Terogon should be used in preference to any other internal treatment for gonorrhea. Mailed free on request.

Special introductory price to physicians:

$1.00 per box of 60 tablets

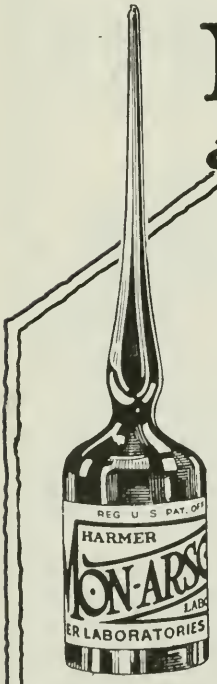
CAVENDISH CHEMICAL COMPANY

220 WEST 43rd STREET

NEW YORK

We are the sole American agents for YOHIMBIN (Henning). Tubes of 10 tablets, $1.00; boxes of 40 tablets, $3.00.

MONARSONE and Tertiary Syphilis



REPORTS from the rapidly increasing number of Mon-Arsone users indicate this arsenical to be a specially valuable therapeutic agent in treating tertiary syphilis particularly when the nervous system is involved.

For example in a series of over fifty CONSECUTIVE cases of syphilis in a nationally known hospital, strong traces of arsenia have been chemically demonstrated in the spinal fluids within one hour after INTRAVENOUS injection.

This largely explains the unusual success of Mon-Arsone when used in late syphilis which has lead to its adoption by many large hospitals throughout the country.

May we send you full information?

FERARSONE

This iron salt of Mon-Arsone, used intravenously, is a valuable therapeutic agent in all anemias where iron and arsenic are indicated. Send for full literature.

THE HARMER LABORATORIES U. S. A.

The **HARMER LABORATORIES LANSDOWNE, PA.**

The Combined Treatment of SYPHILIS by

"Supsalvs," each in a special metallic case for hot climate.

In a series of 200 cases treated in one of the London Hospitals a "Negative Wassermann" was obtained in 80 per cent of cases under observation, the reaction previously being "Positive."

SUPSALVS Stable Suppositories of "606" (Of French Manufacture)

AND MERCURIAL INUNCTION

These Suppositories contain 0.10 grm. of "606" for rectal administration (also made with 0.03 gr. dose for children in box containing 6).

Simple in Use. Rapid and Effective Absorption

Arsenic being found in the blood and urine 12 hours after administration.

Produce No Undesirable Effects

At the International Congress of Medicine Ehrlich stated that the biochemical action of "606" on spirachætes is not direct but indirect, a third factor found in the body fluids being necessary.

This success is explained by the well-known experiment of Levaditi: "If living treponemas be placed in a solution of Arsenobenzol (606) they continue to live in it. But if a trace of extract of liver be added to the mixture the treponemas are destroyed."

"If 606 has to be taken up and transformed by the liver in order to become toxic to the treponema, there is no better mode of absorption of the drug than by way of the intestine, since all the veins of the intestines join the portal vein. If this be the case no route could be more indirect and more unsatisfactory for active treatment than one that is not intestinal or not intravenous (i. e., prehepatic), since some of the drug must necessarily become fixed everywhere before the passage through the liver has activated it."—Dr. Sabouraud, Le Clinique (13-4-1913).

As a result of numerous clinical experiments, Dr. Bagrov, of Moscow, has arrived at the same conclusion, and recommends the rectal method of administration of 606.

Price, per box of 6.....$5.00
Children's dose 3.00

The Combined Treatment of Syphilis with "Supsalvs" and "Mersalv" gives the best results

"MERSALV" contains 10 per cent metallic mercury, which by a special mechanical process is converted in the most minute state of subdivision possible. It is a non-greasy preparation of pleasant odor, and cleanly in application, supplied in white china pots sufficient for 30 days' treatment. Literature, clinical reports and price list on request.

INTRAMINE

di-ortho-di-amino-thio-benzene

A non-toxic organic amino compound of sulphur which is injected in the form of a colloidal emulsion in the treatment of

SYPHILIS, PROTOZOAL and CHRONIC BACTERIAL DISEASES and ACID INTOXICATIONS

(Metallic Poisoning, &c.)

In syphilis and protozoal diseases "INTRAMINE" is used as an alterative to pave the way for the administration of the metallic drugs, and to prevent intoxication following their use.

Among chronic bacterial diseases, "INTRAMINE" is most efficacious in gonorrhoeal rheumatism, urethritis, acne rosacea and seborrhoeic eczema.

In metallic poisoning, such as mercurial stomatitis, and arsenical dermatitis, "INTRAMINE" is of great value, also in jaundice and albuminuria.

"INTRAMINE" for intramuscular injection is supplied in two solutions which must be mixed immediately before use. Price, $3.50. 2 Solutions.

"INTRAMINE" for intravenous injection is supplied ready for use in 50 c.c. AMPOULES.

"INTRAMINE" for internal administration is supplied in KERATINISED GELATINE CAPSULES. Boxes of 24 capsules, price $3.50.

Literature, clinical reports and price list on request.

THE ANGLO-FRENCH DRUG CO., Limited

WILSON BUILDING, 1270 BROADWAY, NEW YORK CITY

Telegram and Cable: Ampsalvas, New York. Telephone: Pennsylvania 6683

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Agent for Chicago District: Penn Drug Co., 333 S. Dearborn St., Suite 522, Chicago

connection, it is interesting to note that the choice of anesthetic in large part determines the prognosis, according to recent writers.

But what of the medical treatment, pure and simple? What form of medication can one use with reasonable hope of bringing relief to the tortured prostatic? Well, there is Suppos. Prostans, for example. The Regent Drug Co. are recommending this suppository. They invite trial on the part of those not already using it. See their coupon offer in our advertising section.

In April, on the 21st and 22nd of the month, the Western Electrotherapeutic Association will meet in Kansas City. The meetings will be held in the Little Theater of that city. All those of the medical profession who are interested in this department of the healing art are invited to attend.

The leading makers of electrotherapeutic apparatus will have exhibits, among them the McIntosh Battery and Optical Company. This company will show the Hogan High Frequency Transformer, the McIntosh Universalmode and the Polysine Generator.

The last outfit named is most compact and practical for the average office use. Those aiming to build up or develop an office practice in which the several electrical currents are to be employed therapeutically, will do well to investigate the Polysine Generator before buying. If you cannot attend the meeting write the company, at 223 N. California Ave., Chicago, for information.

The Universalmode is more elaborate; with it one can do a variety of work that is almost unbelievable.

While fewer cases than formerly are being sent south, referring to tuberculous people, there are times when institutional treatment is to be strongly advised, when, for example, home conditions are not favorable either from the side of the patient or from that of the family. And quite frequently they are not.

Those who can afford a sojourn at the Hillside Sanitarium, at Asheville, South Carolina, are on the whole most fortunate. The climate is benign. There is quiet, good air, pure water and a pleasant prospect all about. The in-

JENTZSCH'S HYPODERMIC LOBELIA

The "Botanic Antitoxin"

Introduced by Dr. Ernest Jentzsch in 1908 and increasingly used by the profession since then.

HYPODERMIC LOBELIA DISTINCTLY A CRISIS REMEDY

As now prepared by Dr. Jentzsch and offered to the medical profession, we present a dependable preparation of true Lobelia Inflata ready for instant use in shock, collapse, anaphylaxis and depression.

The Jentzsch process develops advantages which makes Hypodermic Lobelia necessary in your emergency bag.

NON-EMETIC—NON-DEPRESSANT—NON-IRRITATING

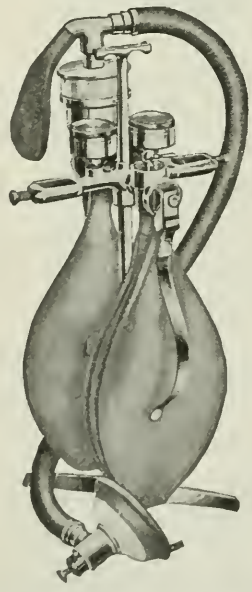
In ampule packages—$4.00 a box. Circular free on request.

THE BOTANIC MEDICINE MFG. COMPANY

3846 Elston Ave., Chicago

RELIEVE PAIN IN LABOR

Then Watch Your Business Grow



It is so easy to relieve pain in obstetrics with the McKesson Junior Special Apparatus that the physician who does not do so is standing in the way of his own progress. The expense per hour is small and the remuneration and gratitude for this service is great.

The Junior Special Apparatus is automatic, portable, small, and requires no attention in Analgesia. It is used also for Anesthesia in minor operations.

Write us for literature, or ask your dealer to see the outfit.

TOLEDO TECHNICAL APPLIANCE CO.

Toledo, Ohio

Winning the Patient's Confidence

FEW patients have any real knowledge of medicine or surgery. Yet they form their own opinion of a practitioner's ability. How? By his manner, his skill, above all by the *character of his office and its equipment.*

The greater the physician's obvious technical resources, the greater must be the confidence that his patients have in him.

A modern office equipment convinces the patient that modern methods in diagnosing and treating disease are employed. It is not only a technical aid in practice. *It inspires confidence.*

No single piece of apparatus is of such general utility as a good X-ray equipment, and none that testifies more eloquently to the physician's resourcefulness. All practitioners recognize the diagnostic and therapeutic importance of the X-ray. Because he thinks that the taking of a radiograph requires special engineering knowledge, many a physician hesitates to install an X-ray equipment and thereby fails to satisfy his professional desire for thoroughness. The truth is that *the actual manipulation of the X-ray apparatus is as easily learned as that of the mechanical and electrical appliances with which most practitioners are familiar.*

The Victor X-Ray Corporation places its facilities and its long experience at the disposal of all practitioners. It will gladly send a technically informed representative to a physician who appreciates at its full worth the aid that the X-ray can lend him in his practice, but who wants engineering guidance. No obligation is incurred.

The physician who installs a Victor machine is entitled to receive Victor Service. This means that if his apparatus needs attention he does not have to communicate with the factory. The nearest Victor Service Station sends an expert, a man able to locate the source of trouble in a few moments. Victor Service is so organized that Victor apparatus need not be idle for many hours or days.

It is the purpose of Victor Service not only to help the physician in such emergencies, but also to give him mechanical and electrical guidance if he asks it, so that he may know how to secure the best results with his apparatus.

As part of this Service policy the Victor X-Ray Corporation publishes a periodical called "Service Suggestions" in which X-ray progress is recorded primarily for the benefit of Victor clients. Others may find "Service Suggestions" of value. It will be sent to them on request.

Victor X-Ray Corporation

General Offices and Factory

Jackson Blvd. at Robey St. Chicago

Sales Offices and Service Stations in all principal cities

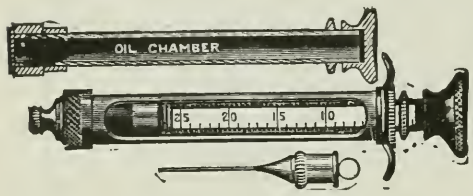
stitution consists of two cottages. It is located upon the mountain side just outside the city of Asheville. The altitude is somewhat in excess of 2,000 feet. Accommodations are limited to seventeen patients, attended by a medical and nursing force more than ample and in every respect efficient for obtaining the best results possible.

Those interested should write for a descriptive leaflet. The rates are quite moderate.

When one finds that under certain treatment the blood pressure of one patient or another is reduced by 30, 50 or more millimetres within a short period, eventually coming down to normal (for the case in hand) and remaining there, this diagnosis is not arrived at by "dead reckoning," but is substantiated by an instrument of precision, the sphygmomanometer; there is no guesswork about it. Consequently, when many physicians report that by means of Dr. M. C. Thrush's formula they are able to reduce hypertension and control it, we can scarcely dispute what they say. Thus, one of the leading heart specialists in New York states that Pulvoids Natrium Compound will quickly and safely bring about the reduction of high blood pressure and keep the patient in a safe condition until the underlying factor can itself be controlled by indicated treatment. The Drug Products Co., Inc., whose advertisement appears in this issue, offer to furnish convincing proof of the efficiency of this formula.

It is fair enough to say that Cinchophen is one of the most satisfactory drugs issued from the laboratories in the recent past. Knowing this to be so we can account for the great growing demand for it reported by the Abbott people, of Chicago. This company is today accredited in the trade with being the largest producers of Cinchophen in America if not in the world.

Both tablets and the powdered drug are to be had under the Abbott label. The tablets carry 7½ grains; the dose is one to two tablets. As an eliminant of uric-acid no prior drug equals it for effectiveness. At times, while it is being taken, the uric acid in the voided urine increases as much as 300 percent, and



Our Hypodermic Syringes all have the new style HOLLOW Pistons which are filled with oil clear to the outer ends, so that the packing NEVER dries out, the Pistons NEVER work hard, the Syringes NEVER leak, and the oil being 5% carbolated, keeps the Syringes automatically asceptic without boiling, and, if broken, these Syringes can be repaired on the spot by the physician himself.

Pistons of old style Syringes replaced with our new HOLLOW Piston and returned promptly.

THE WESTERN SUPPLY CO. Canton, Ohio

N. B.—Send for our new descriptive Catalogue and also for free sample of our Gold Medal Special Needles.

BURDICK MERCURY VAPOR QUARTZ LAMPS

Rigid laboratory and clinical tests with these new quartz lamps have established the superiority of their construction and great effectiveness in service.

Distinctive Features

NEW mercury quartz generator gives the highest known ultra-violet ray production. By means of a unique valve rectifier this generator operates on alternating current with as much satisfaction as on direct current.

SPECIAL condensing reflector, adjustable to any angle for all positions in giving treatments, projects the actinic rays in great volume through the diaphragm opening in the casing.

COMBINATION of these features in the new Burdick Air-Cooled Lamp enables the general practitioner to do much of the local skin and cavity work which formerly required two lamps.

BURDICK Water-Cooled Lamp contains the most efficient quartz generator possible to obtain. It is equipped with many mechanical features which adapt it particularly to the use of the specialist in actinotherapy.

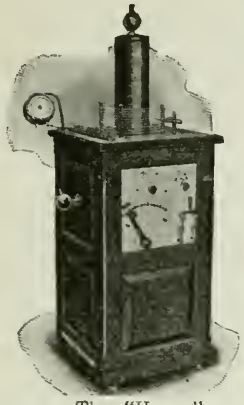
Doctors passing through Chicago will find an interesting exhibit at our Display Parlors. Opportunity is provided to observe the operation of the new lamps in practical test demonstrations.

Attractively illustrated catalog "M" with complete information is yours for the asking.

Display Rooms:
518-19 Stewart Bldg.,
CHICAGO

BURDICK CABINET COMPANY.

2700 Atlantic Ave.,
MILTON, WISCONSIN



The "Hogan"
High Frequency Transformer

ELECTRO-THERAPY

"The Crying Need of the Day!"

The Western Electrotherapeutic Association

will meet at Little Theatre, Kansas City, Mo., April 21st and 22nd, 1921. You are cordially invited to attend this meeting and visit us at our exhibit of the latest models in Electro-Therapeutic apparatus.

The "Hogan" High Frequency Transformer Type Affording

D'Arsonval, Oudin and Tesla Currents

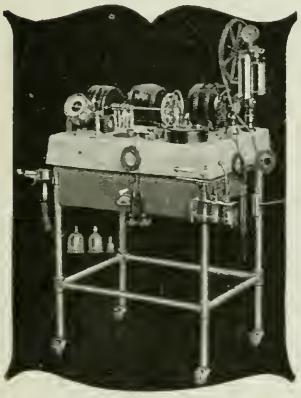
Auto-Condensation, Diathermy, Electro-Coagulation, Fulguration, Hot Spray, Hot Vacuum Tube Currents, Cool Vacuum Tube Currents, Thermo-Faradic, Closed Core Transformer and Franklin Plate Condenser.

Insulated in Oil

Non-Oxidizable Spark Gap

Permanent Service Assured

You are Daily Deferring Complete Success Without It.



The Universalmode

The McIntosh Universalmode

A Low Tension Currents Laboratory Plus In One Unit

Affords

Galvanic currents for Localized Chemical Action. Ionic Medication acts immediately directly on parts affected leaving no derogatory effects. Cataphoresis and Electrolysis.

Slow Sinusoidal currents stimulate involuntary action.

Surging Sinusoidal and Faradic currents for local and general stimulation.

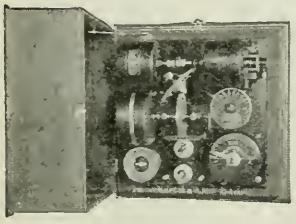
Mechanical Vibrator affording percussion stroke.

Air Compressor for pressure, suction and massage.

Cautery for every cautery operation.

Diagnostic Light, etc.

Most economical apparatus obtainable affording this service.



The McIntosh No. 8
Polysine Generator

The Popular Sinusoidal Apparatus

The McIntosh No. 8 POLYSINE GENERATOR for operation on alternating current is complete in one unit. It generates Galvanic, Slow Sinusoidal and Rapid Sinusoidal currents that are ground free and therefore can be used wherever these currents are employed for treatment purposes. Thousands of these generators are being used by physicians both in their private practice and in the United States and Canadian Reconstruction Centers and Public Health Service where, from all indications they are giving excellent results.
Increase Your Capacity and Build Up An Office Practice! Our literature will help you.

FREE! Practical Technique for the application of High Frequency, Galvanic and Sinusoidal Currents sent on request without obligation to you. Just fill out and mail the coupon to us.

McIntosh Battery & Optical Company

Oldest Manufacturer of X-Ray and Electro-Therapeutical Apparatus in the U. S. A. Not affiliated with any others.

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Gentlemen: I am interested in the .....

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Please send to me Clinical Data and full particulars regarding apparatus and special terms on same.

Name .....

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its presence in the blood is reduced correspondingly.

The drug is indicated in retention ailments, as gout, rheumatism, neuritis, lumbago, sciatica, etc. Usually it is well borne. Only renal or ureteral concretions need deter one from prescribing it.

The doctor is asked at times to recommend a retreat for the unwed mother, where she may be cared for in her trouble, confined when pregnancy is terminated, and looked after in a friendly fashion till the ordeal is all over, which fate has imposed on her.

The Woodlawn Maternity Home is such a place. It is located at Oswego, New York. The management, we are told, will even find a home for the infant under some childless roof; in other words, parents to adopt it in case the mother is not in position to rear her offspring, as often she is not, or for any other reason does not care to do so.

We suggest that our readers make a note of this, keeping the address for future reference. It is well to know where to turn in every contingency. The practice of tabulating information of this sort as it comes, for future use, is a good one. If consistently filed it is always available when wanted.

What is more annoying to the doctor when, on having occasion to use his syringe, he finds it clogged or otherwise out of order? At such a time the poise and temper of the gen-

A PHYSIOTHERAPEUTIC WEEK IN KANSAS CITY

At the Little Theatre, April 18, 19, 20, 21, 22, 1921

WESTERN SCHOOL OF ELECTROTHERAPY

Third Course of Lectures by B. B. Grover, M. D., April 18-20

Clinics: By Drs. T. Howard Plank, Chicago; Frederick H. Morse, Boston; J. D. Gibson, Denver; Omar T. Cruikshank, Pittsburgh; Curran Pope, Louisville; Chas. J. Cahill, Kansas City.

Classes are now being formed. Number limited to those who register in advance.

Western Electro-Therapeutic Association, Third Annual Meeting, April 21-22

Send for program and registration blank. Chas. Wood Fassett, M. D., Secretary, Kansas City, Mo. and a free copy of the "Medical Herald and Electro-Therapist."

A New Effective Way in Prostate Cases

The Electrothermal Dilator provides a method by which old chronic prostates are cleared up rapidly. Dr. Pitzer, of Hutchinson, Kansas, wrote us as follows:

Hutchinson, Kans., June 26, 1919.

Electrothermal Company,
Steubenville, Ohio.

Dear Sirs:—

I think from the great benefit derived from your Electrothermal Appliance for treatment of Prostatic, Piles, and other troubles, a statement is due you for what it has done for me.

I had very bad prostatic and rectal trouble. Your appliance cured me in less than six weeks, a wonderful cure for one of my age. I will be 81 years old the 11th of next October. I am one of the oldest X-Ray specialists in America. Have used electricity for medical purposes for the last 22 years.

If you like, you can use this statement for your advertisements.

Respectfully yours,
DR. J. M. PITZER.

Dr. J. M. Pitzer.

Provides an excellent office method or can be prescribed. Ask for "Prostatology," an instructive book sent free on request.

THE ELECTRO THERMAL COMPANY

402-A Kirk Bldg Steubenville, Ohio

Thermalaids

"Lightning" The Aloe Electro-Therapeutic Cabinet with complete instructions.

Here is an opportunity for the physician to increase the range of his professional services through the use of Electro-Therapeutics as made possible by "Lightning," the Aloe Electro-Therapeutic Cabinet—the big asset for the progressive practical physician. The advantages and possibilities of this modern therapy are being recognized more each day by both the investigator and the practitioner. Realize, Doctor, this is an entirely new, distinctive and complete apparatus that combines simplicity, ease of operation and durability with thorough equipment, furnishing practically everything needed by the general practitioner.

AFFORDS THESE MODALITIES

HIGH FREQUENCY—
The Violet Ray, through the glass vacuum electrode, produces increased blood supply to a given point (hyperemia); increases bodily heat without a corresponding rise in temperature, etc., etc.

D'ARSONVAL—
Affords Auto-Condensation for the relief of High Blood Pressure, etc., and Modified Diathermy for rheumatism, sciatica, neuralgia, lumbago, etc.

SINUSOIDAL—
This current has proven a material aid in muscular lesions and paralytic conditions.

FULGURATION—
Either caustic or dessicating for growths and lesions.

CAUTERY—
For Cautery this apparatus supplies 36 points of regulation and will properly heat any ordinary knife or point.

DIAGNOSTIC—
An accurately regulated current which can be used safely to illumine the smallest electric lighting bulbs for examination and diagnosis.

Practical Treatment Book

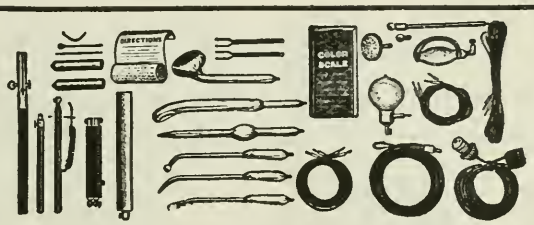
We include free Dr. Noble M. Eberhart's Electro-Therapeutic Manual, profusely illustrated, which explains in plain words how to treat some 200 indicated conditions. You can learn in an hour to use the Aloe Cabinet with the aid of this authoritative text.

Free—A Practical Course in Electro-Therapeutics

To every purchaser of the Aloe Cabinet we give this valuable course by mail in Electro-Therapeutics. Monthly lessons tell you plainly how to make the Aloe Cabinet build a larger practice, add to your income and prestige; how to get results; how to increase the value of your professional services.

Chair or Table Pad for Auto-Condensation

We include this folding combination chair, table or bed pad, for the Auto-Condensation, D'Arsonval or Modified Diathermic treatments. It is well constructed and covered with a di-electric of black sheet fiber.



Completely Equipped with Electrodes and Accessories.

1 Surface High Frequency Electrode.
1 Rectal High Frequency Electrode.
1 Vaginal High Frequency Electrode.
1 Nasal High Frequency Electrode.
1 Throat High Frequency Electrode.
1 Urethral High Frequency Electrode.
1 Handle for High Frequency Electrode.
1 Heavy Insulated High Frequency Cord.
1 Auto Condensation Chair Pad.
1 Regulating Lamp and Clamp.
1 D'Arsonval Haodle.
2 Sinusoidal Handles.
2 Sinusoidal Cords.
1 Handle for Spongio Disc.
1 Spongio Disc.
1 Hand Diathermy Electrode.
1 Diagnostic Illuminator with Cord, Holder and Tungsten Lamp.
1 Extra Tungsten Lamp.
1 Cautery Handle, Adjustable.
1 Cautery Knife, Pointed Shape.
1 Cautery Knife, Loop Shape.
2 Cautery Cords.
1 Fulguration Electrode Handle.
1 Straight Tip for Fulguration Electrode.
1 Curved Tip for Fulguration Electrode.
1 Flat Tip for Fulguration Electrode.
1 Connecting Cord and Plug for Generator.

10 DAYS FREE TRIAL—FULLY GUARANTEED

You run absolutely no risk. All we ask is that you carefully examine "Lightning" the Aloe Electro-Therapeutic Cabinet and test it out thoroughly for ten days. If you are then willing to part with it, you may return it at our expense and we will at once, without argument or question refund your first payment. This equipment will last a lifetime and is covered by our iron-clad guarantee for two years against any and all electrical and mechanical defects.

FREE
Send for Booklet

Easy Rental Purchase Plan

For the first time a really complete, practical and high grade Electro-Therapeutic apparatus is offered by us to the profession on terms so liberal that the easy monthly payments will scarcely be felt. Remember, $10 places "Lightning," the Aloe Electro-Therapeutic Cabinet, in your office.

Your Opportunity

Doctor, here is your opportunity to use treatments which volumes of clinical evidence prove preferable. Let us prove that this apparatus is a judicious investment. Let us demonstrate what it will mean to your patients—you—your practice. Write at once for FREE booklet, "What Electro-Therapy Means to the Physician."

MAIL COUPON TODAY

A. S. ALOE CO. 526 Olive St., St. Louis, Mo.

Without obligation, please send me full particulars of "Lightning", the Aloe Electro-Therapeutic Cabinet, together with free booklet. "What Electro-Therapy Means to the Physician"

Name.....

Address.....

City..... State.....

A.S. ALOE CO. 526 Olive St., St. Louis, Mo.

tleman is only maintained with the greatest difficulty. At the best he must lose a quarter of an hour or more trying to put it in working condition; at the worse he will make a botch of the task in hand. Then, too, the occurrence shows him in a bad light. The patient sees him careless, careless in the choice of his tools, careless in the keeping of them.

The Western Supply Co., Canton, Ohio, assure us that their hypodermic syringe is constructed in such fashion that it will give no trouble. In the first place it has a hollow piston, say they, which is filled with oil, this for the purpose of keeping the packing from drying out. That is what, in the ordinary instruments, makes them work hard and sometimes causes them to break under the force required to propel the piston forward. But those interested ought to write for the catalog issued by the makers which describes this syringe in detail.

The prescriber is learning slowly but surely to specify what he desires his patient to have. Of course, in the abstract, he desires him to have the best and most potent preparation available of this drug or that. But, practically, he may not always be sure of getting it unless he goes to the trouble in each instance to name the brand he has in mind. And surely it is best to do so, in the interest of all concerned, for naturally the market with both the good and the worthless, the potent and the inert, the genuine

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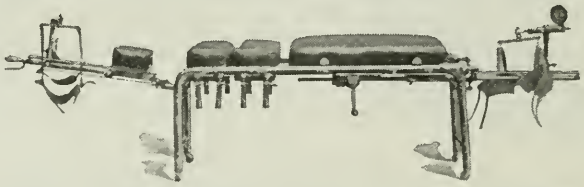
A MONEY MAKER FOR THE GENERAL PRACTITIONER

Removes the persistent pain of the seemingly incurable chronic cases.



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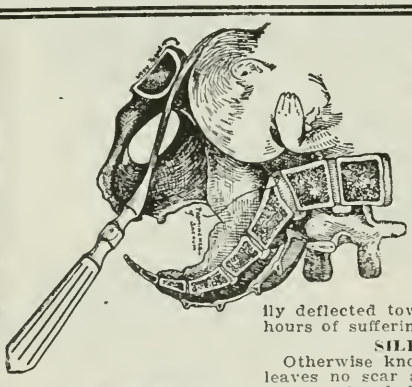

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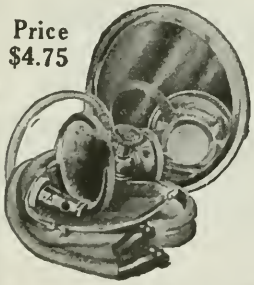

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(Solid Gold)

No possibility of injury. No irritation. Safe and sure. Inserted very easily.

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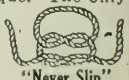
"Full supply for thirty cases at only a nickel each. Send us $1.50 and we will ship at once prepaid. You will say that Never-Slip is your best aid in obstetrical technique. The only round cord that will not slip, will not cut and will always hold."



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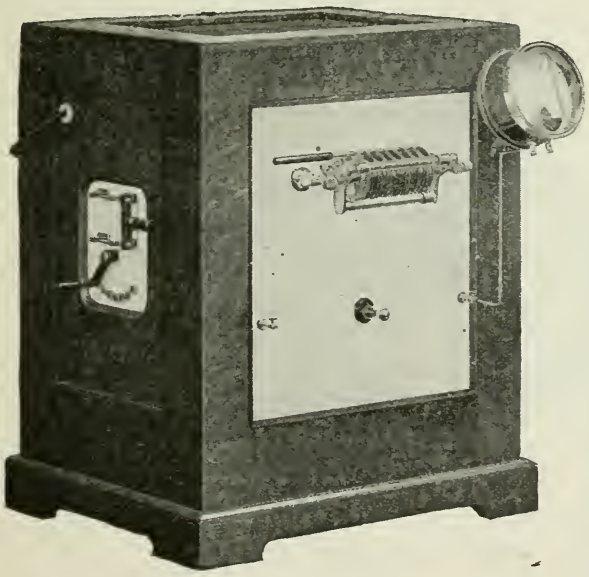

Announcement

THE high frequency outfit described above will be demonstrated at the next meeting of the Electro - Therapeutic Association in Kansas City, Mo., from April 18th to 23rd inclusive.

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and the spurious. Drug preparations are not invariably what they purport to be any more than other commodities.

Hence the importance of the brand-name. The brand-name serves a purpose.

Consider the cascara preparations, how variable they are ineffect. To make sure of the true drug effect as we know it the prescriber is wise who writes the word-mark Triner's in brackets on his blanks. The Joseph Triner Company (of chemists) have specialized for years on the extraction of cascara. They use a bark that is properly aged; no bark being employed for extraction till it has been three years or more in the warehouse.

Either prohibition does not prohibit or the brand of liquor drinkers are getting these days is more deadly than ever, is the conclusion to be drawn from the report given out recently by the insanity commission of Cook County, Ill. This report shows an increase of 33% in the number of alcoholic cases handled by the commission in one month over those of the last corresponding pre-prohibition month. Not a very encouraging showing this; it indicates that alcohol addiction is still with us to be treated. As for drug addiction, there are rather more cases in the country than ever.

Both drug and alcohol addicts may be treated at home but unless conditions are most favorable and constant attendance can be provided it is probably best that such people be sent to an institution, such for example as the Glenwood Park Sanitarium, Greensboro, South Carolina. Under the expert treatment there given alcoholism is curable in three or four weeks it is said, and drug addiction in from three to six weeks. The medical staff is one promising the utmost efficiency.

In reference to acriflavine, one practitioner who used it in a series of gonorrhea cases said that "the organisms disappeared after the first or at most the third injection, but one patient did not tolerate it well while another found himself so quickly well (ostensibly) that he withdrew from observation."

The new agent is now being quite extensively employed in this country and reports have begun to appear. On the whole they are distinctly favorable and support the contention that Acriflavine terminates the infection quicker than any agent priorly used against it. Occasionally it fails quite as signally as it succeeds in the majority of cases. As Davis suggests, such failure may be due to an especially susceptible urethra or to anatomical peculiarities in the way of inaccessible crypts. Then, too, the cases not responding usually have high urinary acidity. Properly the urine should be alkalinized with Sodoxylin, say. The 1:2000, according to some, is the strongest solution one should use to begin in any case. For that matter, excellent results are reported by Keyes and others with solutions no stronger than 1:4000. Any strength desired is readily had with the tablets supplied by The Abbott Laboratories, Chicago.

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This compact and efficient holder keeps your fever thermometer in a sterilizing solution at all times when not in use, obviating any possibility of carrying infectious bacteria.

It is no larger than a fountain pen, just as easy to carry, cannot leak, and may be easily refilled.

The Morneau Sanitary Case for thermometers is built for hard usage and should last a lifetime as it is made of only the highest grade materials. The case is so designed as to permit the use of any standard clinical thermometer, although the Morneau One-Minute Thermometer, made with markings inside the glass, proves the most satisfactory.

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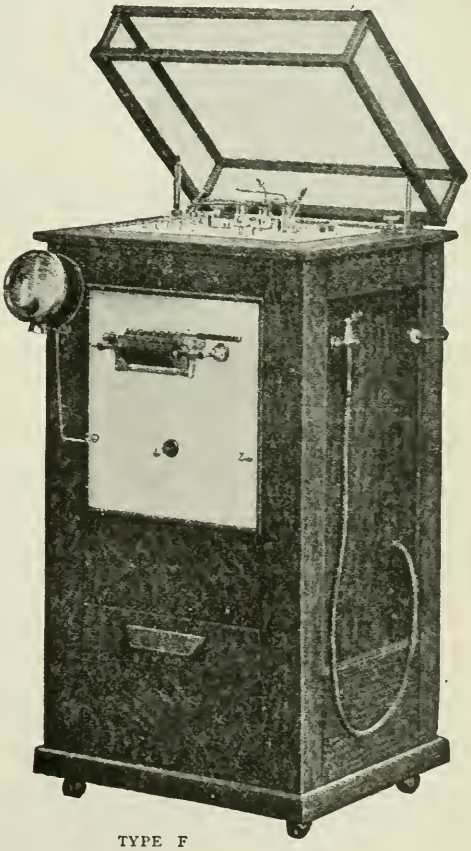

TYPE F

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My electric current is { alternating / direct } Volts Cycles

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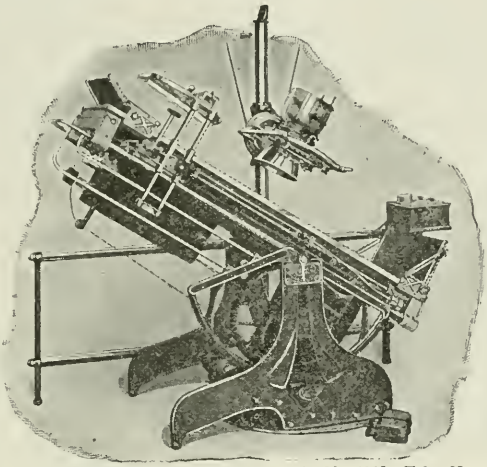

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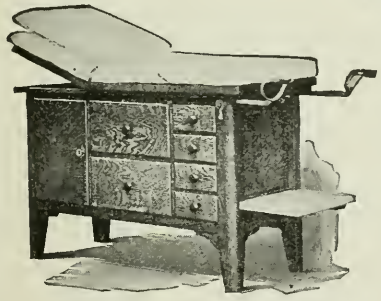

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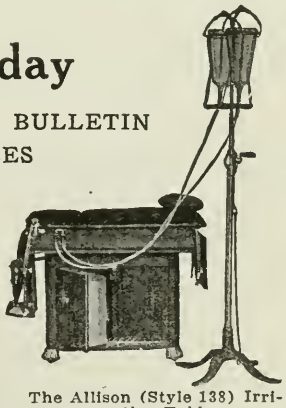

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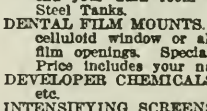

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An acid tooth paste which brings five effects desired by modern authorities

THE PEPSODENT COMPANY, 605
6719 Ludington Bldg., Chicago, Ill.

Please send me, free of charge, one regular 50c size tube of Pepsodent, also literature and formula.

Name .....

Address .....

Enclose card or letterhead

Oral Prophylaxis

MOUTH CLEANLINESS is no longer merely a matter of personal inclination or desire; medical men now recognize it as an essential detail in the prevention of disease.

THE MOUTH offers an ideal dwelling place for germs; it is of just the right temperature and moisture, and unless regularly cleansed, there are always enough decomposing food particles in the deep tissue folds and around the teeth to attract and favor the retention of all sorts of pathogenic bacteria.

NEGLECT OF THE MOUTH means a constant invitation to many of the acute diseases.

A CLEAN MOUTH is, therefore, the first consideration in the modern scheme of personal hygiene.

DIOXOGEN—the best and purest peroxide of hydrogen—is an invaluable mouth-cleanser. Owing its antiseptic qualities to pure oxygen—the same agent—that makes sunshine and good air the most efficient of germ-destroyers, Dioxogen penetrates to the deepest recesses of the mouth, where it softens and detaches all accumulated material, and cleanses and purifies everything it touches.

DIOXOGEN is not a mixture containing aromatic flavors or other substances to convey the idea of great antiseptic power. It is, instead, colorless, odorless and almost tasteless, with a germicidal efficiency superior to the solutions of carbolic or bichloride ordinarily used, but without the slightest toxic or irritating effect.

DIOXOGEN, in consequence, can be used as freely as necessary or desired, in even the youngest patients, with absolute certainty not only that it will keep the mouth and teeth in a clean and wholesome condition, but that it will always do its work in a pleasant and agreeable manner.

THE OAKLAND CHEMICAL COMPANY

59 Fourth Avenue
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"A Prompt Diagnosis is Half the Battle of Disease"—OSLER

Two New Time Saving Glucose Tests

FOR INSTANT USE IN OFFICE OR SICK ROOM

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Time, 45 Seconds Cost, 1¾ Cents.

Directions: Roll up an F. A. F. Sugartest Strip, drop into test tube or any porcelain or enamel dish; add a little water, add 3 to 5 drops of urine: Boil. If liquid turns yellow, sugar is present.

Ten Times as Sensitive as Fehling's

F. A. F. SUGARTEST STRIPS

15 Qualitative Tests in a Vest Pocket Packet for 25 Cents.

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Time, 3 Minutes. Cost 15 Cents.

RAPID RELIABLE ACCURATE

F. A. F. SUGARTEST TUBES

Box of 10 Complete Quantitative Tests $1.50.

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"I wish to Inform you of the therapeutic values I have derived from PNEUMO-PHTHYSINE in Spanish influenza and pneumonia, bronchitis, croup (true and false), also in adenitis tubercular and streptococcic.

I have reduced the mortality seventy-five per cent by its usage, as it delivers the reaction on the circulation essential to recovery.

It certainly has within its formula all that could be expected and the most benefiting medicinal agents. The formula cannot be excelled. I also use it by adding mercury in specific bubon.

All who doubt this agent should just try it for a change."

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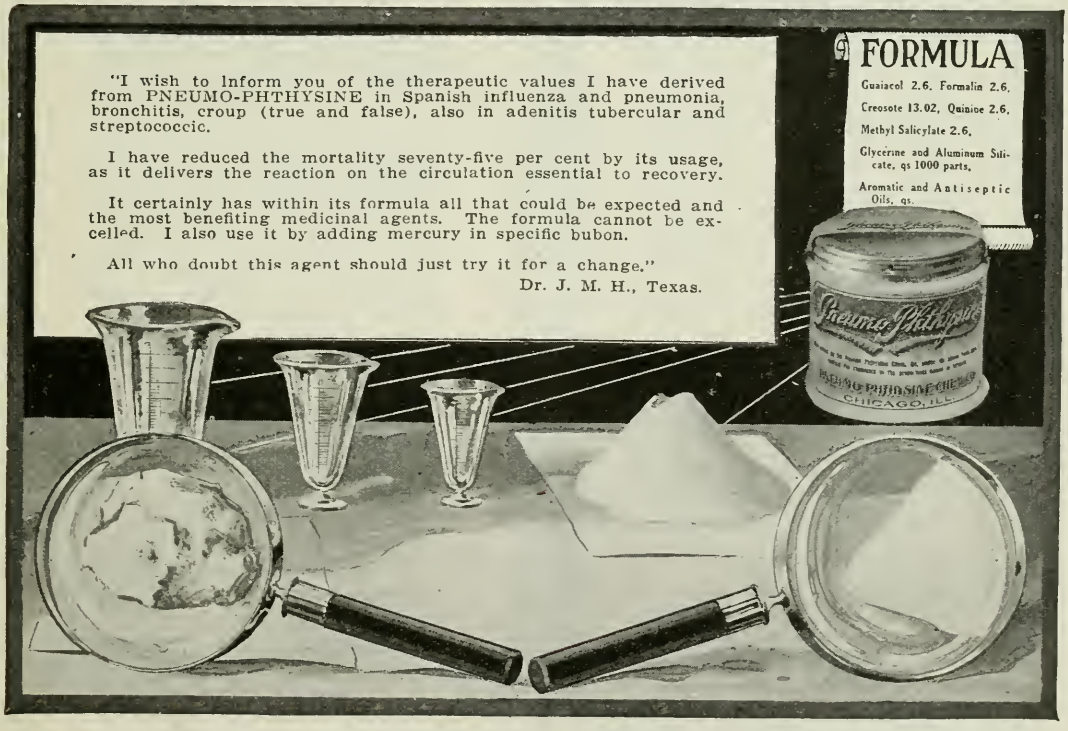
Guaiacol 2.6, Formalin 2.6,
Creosote 13.02, Quinine 2.6,
Methyl Salicylate 2.6,
Glycerine and Aluminum Silicate, qs 1000 parts,
Aromatic and Antiseptic Oils, qs.



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Proper use of a perfected product assures satisfactory results.

TERRALINE

(Petroleum Purificatum)

a pioneer preparation of medicinally pure petroleum oil, bland, palatable and standardized, has for years demonstrated its value both as an intestinal lubricant and especially in the treatment of bronchial irritation, for the relief of cough, to promote expectoration and assist in the healing of inflamed areas.
Terraline is supplied either plain or with Creosote or Heroin. Terraline has been tested and proven by thousands of physicians, to whom it has appealed on account of its quality, its ethical introduction and its convincing response to the acid test of actual performance. Terraline forces conviction because it brings results.

Samples and literature to physicians only on request.

Hillside Chemical Co., Newburgh, N. Y.

Pneumonia and Influenza Patients

succumb as a rule from acidosis rather than from cardiac failure. In fact, reduction in the normal alkalinity of the blood and of other vital tissues is the cause as well as the predisposing element of many diseases and disorders, organic and functional.

THIALION

is antacid and eliminant. THIALION is efficient and palatable. THIALION is time proven and has been trial tested.

THIALION will be indicated in many cases met with in daily practice. THIALION, when clinically tested, will secure better therapeutic results.

For Samples and Literature Address

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A New Treatment for Tuberculosis

APHLEGMATOL

The result of ten years' experimental work on the part of PROF. DOMENICO LO MONACO, Director of the Institute of Physiological Chemistry of the Royal University of Rome, in the use of injections of CARBOHYDRATES. Employed successfully in many cases. Reduces expectoration, fever, cough, night sweats and vomiting. Satisfactory results are almost always secured after TEN DAYS' treatment. Prepared in the laboratory of Prof. Lo Monaco in Rome.

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You can't get evidence of the quality of an article by absent treatment.

You must use the article before you can say whether or not it will give you the desired service.

That's why we offer to send a Sanborn Blood Pressure Outfit to you for free trial in your practice.

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Frankly, Doctor, could a fairer business proposition be made than the one in the coupon below?

No advance payment required.
Just send the coupon.

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You may send a Sanborn Blood Pressure Outfit to me for trial.

If not satisfied, I shall return it; if satisfied, I shall remit $17.50.

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You may send me samples of your fabrics with prices and measuring blank.

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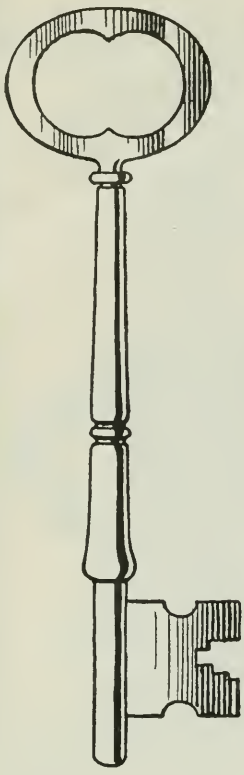

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In most conditions and in all seasons

In at least half the cases as they come, **Saline Laxative,** by providing proper elimination, is a way to results the whole year round. Use ABBOTT'S SALINE LAXATIVE

- —to rid the bowel quickly of offending residues and ptomaines.
- —as an initial purge in fever cases.
- —to expel fermenting masses collected at the flexures and to break up impactions.
- —for a fortnightly cleaning out which many patients require and to follow calomel.
- —to assist and facilitate the action of remedies by providing free elimination.
- —to overcome so-called indigestion symptoms when due to a loaded colon.

To maintain a clean bowel follow the Saline purge with Intestinal Antiseptic (W-A), and later with Galactenzyme, a true culture of the Metchnikoff bacillus; for rheumatic cases, Salithia is indicated; when acidosis is dominant, Sodoxylin (Abbott) should be used in connection with Saline Laxative.

NET PRICES

SALINE LAXATIVE — per half-dozen bottles, medium,	$3.15
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If your druggist is not stocked order direct. We prepay delivery charges on all orders of $5.00 or more, net. Send for Literature and Samples.

The Abbott Laboratories

Manufacturers of Cinchophen, Procaine, Chlorazene, Dichloramine-T, Chlorcosane, Argyn, Saline Laxative, Calcidin and other specialties.

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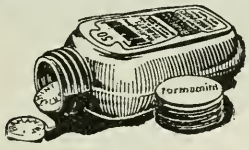
Oral Hygiene

is universally admitted to be one of the principal means of defense against many of the infectious diseases, such as coryza, influenza, septic sore throat, acute bronchitis, and similar ills. The micro-organisms which give rise to these ills are continually getting into the mouth, and if this cavity is not frequently cleansed and disinfected, these germs sooner or later find conditions which enable them to gain an entrance to the system, and produce their pernicious effects.

The maintenance of a clean, germ-free mouth is essential, therefore, to the preservation of health, and to accomplish this there is no measure more convenient and effective than

Formamint



A tablet slowly dissolved in the mouth renders the secretions antiseptic, and as these reach the entire oral mucous membrane, a thorough and prolonged disinfection of the mouth and throat is assured.

The exceptional efficiency of Formamint tablets as an oral antiseptic readily accounts for their constantly increasing use, not only in the treatment of affections of the mouth and throat, but also as a dependable aid in preventing many infectious diseases, especially those prevalent during the Fall and Winter months.

Liberal samples sent on request

The Bauer Chemical Co., Inc.
115 West 18th St., New York City

5000 Years Ago

When the Pyramids were young, the use of castor oil as a medicine was known from Egypt unto China.

Today the skill of the chemist has removed from castor oil its unpleasant taste and its tendency to disturb the stomach, but without affecting its beneficial therapeutic action and effect.

KELLOGG'S
Tasteless Castor Oil

is truly tasteless, secured by refinement only, without the addition of any flavoring or disguising substance. More important still, is its ability to "set well" on the stomach, absolutely without the reaction that makes most people object to or refuse to take ordinary castor oil or its disguised or flavored forms.

Kellogg's Tasteless Castor Oil is especially refined for medicinal use. Therefore this valuable remedy is easy to administer. As you know, castor oil is recommended in the Papyrus Ebers, the Papyrus Hearst, prescribed by Greek, Roman, Arabian medical men and their descendants to the present day as a feces softener, bowel evacuant, in the treatment of intestinal toxemia, stasis, high blood pressure, hemorrhoids, and other pathological conditions.

Send for interesting booklet on *"The Therapeutic Uses of Oleum Ricini"* —with sample if desired.

Sole Distributor

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The Storm Binder and Abdominal Supporter

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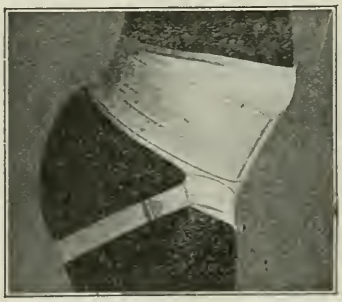

Adapted to use of Men, Women and Children for any condition needing abdominal support—*Hernia, Ptoses, High and Low Operations, Obesity, Pregnancy, Relaxed Sacro-Iliac, Articulations, etc., etc.*

The Storm Binder with inguinal hernia modification is more and more winning approval as its success is demonstrated: It retains the hernia and gives a support to the lower abdomen and inguinal regions which is comforting and beneficial.

The Storm Maternity Supporter acts as a sling, lifting the pressure from the pelvic organs and blood vessels: It is a practical means of relief from backache and is appreciated by the patient. After the birth we make needed alterations at a nominal charge.

Illustrated, descriptive folder with samples of materials used will be forwarded upon request.

All mail orders filled at Philadelphia within 24 hours.

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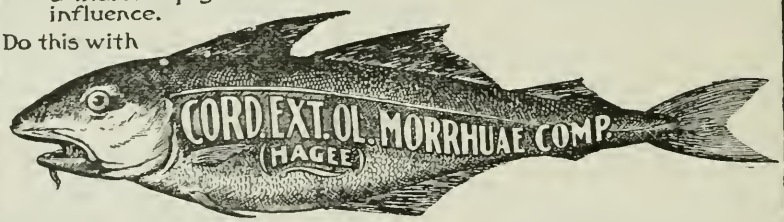
in those run-down, neurotic patients of yours, not only indicates a physical improvement but also it has a marked psychical influence.

Do this with



a cod liver oil preparation that is definitely and peculiarly indicated in this class of cases.

PALATABLE — WELL TOLERATED.

EASILY ASSIMILATED

EACH FLUID OUNCE OF HAGEE'S CORDIAL OF THE EXTRACT OF COD LIVER OIL COMPOUND CONTAINS THE EXTRACT OBTAINABLE FROM ONE THIRD FLUID OUNCE OF COD LIVER OIL, (THE FATTY PORTION BEING ELIMINATED), FOUR GRAINS CALCIUM GLYCEROPHOSPHATE, FOUR GRAINS SODIUM GLYCEROPHOSPHATE, ONE HALF GRAIN SALICYLIC ACID, (MADE FROM OIL WINTERGREEN) WITH GLYCERIN AND AROMATICS.

FREE FROM GREASE AND THE TASTE OF FISH

Supplied in sixteen ounce bottles only. *Dispensed by all druggists.*

Katharmon Chemical Co., St. Louis, Mo.

KATHARMON

Katharmon Chemical Co., St Louis, Mo.

as a gargle reduces to a minimum the possibility of infection through the throat.

KATHARMON represents in combination Hydrastis Canadensis, Thymus Vulgaris, Mentha Arvensis, Phytolacca Decandra, 10% grains Acid Borosalicylic, 24 grains Sodium Pyroborate to each fluid ounce of Pure Distilled Extract of Witch Hazel.

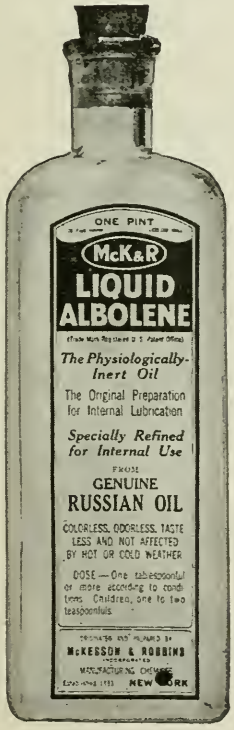
Your Patients Will "Get Well" More Quickly If You Clear Out Their Scybalae

WHEN the intestines are thickly encrusted with dried, hardened feces there isn't much chance for the absorption of nutrient material.

But there is ample opportunity for the absorption of products of putrefaction into the circulation.

A large percentage of patients suffering from disorders of nutrition and metabolism are troubled with this condition.

Ordinary cathartics fail completely to loosen and remove these inspissated masses.



Liquid Albolene, by its superior qualities for "mix, penetration and lubrication," facilitates the expulsion of intestinal debris; and thereby promotes absorption of nutritive pabulum.

Try Liquid Albolene—the pure Russian Oil, absolutely bland and non-irritating—on a few of your most obstinate cases of mal-assimilation, Doctor, and see the improvement manifested in a week or two.

Write for our booklet, "Below The Equator," describing the mode of action of Liquid Albolene.

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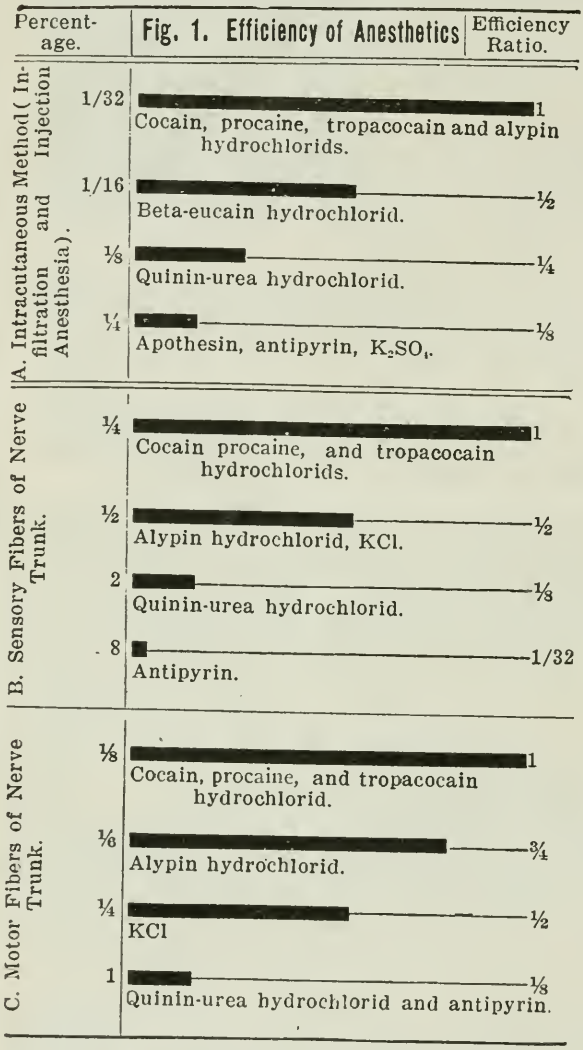
INCORPORATED
Manufacturing Chemists
Established 1833 **New York City**

Proves Procaine Best for Local Anesthesia



From the American Year-Book of Anesthesia and Analgesia, last edition, page 308

While no less effective than cocaine when injected, as the table alongside shows, **Procaine** solutions are safer and less irritant. **Procaine** is only about one-seventh as toxic. **Procaine** causes no visual disturbance. No narcotic blank is needed for its purchase. For these reasons it is the choice of careful operators everywhere.

Special

To acquaint as many doctors as possible with this excellent local anesthetic we offer:

100 tablets
A-P (Abbott's Procaine)
No. 1.....**$1.00**

Each tablet contains Procaine (Abbott) gr. ⅓ with adrenalin gr. 1/2500. One tablet in 1 mil (16 minims) of distilled water makes a 2% solution.

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Manufacturers of Barbital, Cinchophen, Chlorazene, Acriflavine, Dichloramine-T and other Council-passed specialties.

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When the diet you prescribe requires abstinence from meat

Say—

BOVININE

THE FOOD TONIC

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A New Mercurial Treatment for Syphilis

BY FUMIGATION AND INHALATION ONLY

NO NEEDLE—NO INUNCTION—NO STOMACHIC MEDICATION

NO APPARATUS NECESSARY — TECHNIC SIMPLE

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A private hospital for Nervous and Mental Diseases, Alcoholic and Narcotic Inebriety. Incorporated 1883. Separate departments for men and women. Careful attention to proper classification, every convenience and any accommodation desired. Facilities unsurpassed. Electricity, Hydrotherapy and Massage. Site elevated, retired and beautiful. Ninety-six acres in lawn and forest.

THE PINES

A Neuropathic Hospital for women only. Mental cases not received in this building. First class in all its appointments. Under the same control and management as the Oxford Retreat. Thirty-nine miles from Cincinnati, eighty-four miles from Indianapolis, on C. H. & D. R. R.; ten trains daily.

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Menstrual and Menopausal Disorders

afford a good field for appropriate organotherapy. It is now recognized that pluriglandular combinations give better results than single gland products. Clinical results emphasize this and physicians who use

HORMOTONE

are seldom disappointed. In those women at the menopause whose thyroid function diminishes too quickly with a subsequent high blood pressure and other disagreeable symptoms

Hormotone Without Post-Pituitary

is recommended. Both products have the approval of many leading physicians.

Dose of either preparation; One or two tablets three times daily before meals.

To the physician who has not yet used Hormotone a trial package will be sent on request.

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A modified milk food—not a milk modifier

Sterile
Nutritious
Digestible
Convenient

It will not be surprising to medical men who use Nestlé's Milk Food to learn that it is today the most widely employed prepared infant food throughout the civilized world.

They know how pure it is, how easy and convenient to prepare, and how useful and efficient it is as a substitute for mothers' milk.

They know how babies thrive—even those weak and undeveloped—when placed on Nestlé's Milk Food.

They know that the use of Nestlé's Milk Food means healthy, normally growing babies with gratifying freedom from gastro-intestinal troubles.

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May we send YOU a complimentary package?

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Organotherapeutic Suggestions

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Disturbances of menses and sex function of ovarian origin, including dysmenorrhea, asexualism, sterility, infantilism, neuroses and sympathetic disorders in young women and at the menopause, are clearly due to endocrine dysfunction, but not of the ovaries alone, for the related glands, especially the thyroid and pituitary, also are concerned.

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THERE ARE many of your patients who are sick because of Ovarian Dysfunction—the menses are tardy, scanty, painful or prolonged. They are tired out during the premenstrual delay, neurotic, temperamental, and "difficult."

Ovarian Organotherapy

Thyro-Ovarian Co. (Harrower) represents an efficient ovarian therapy because in addition to the accepted and useful corpus luteum and ovarian substance, the **associated glands** are also considered, and the addition of thyroid and pituitary makes "a wonderfully efficient formula."

A comprehensive booklet **"Ovarian Dysfunction"** will be sent to physicians on request.

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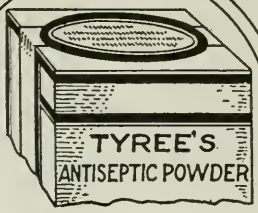
Note: There are still several copies of the 272-page cloth-bound, $2.50 book, "Practical Organotherapy," available. Get a copy AT ONCE by sending only 25 cents for delivery charges.



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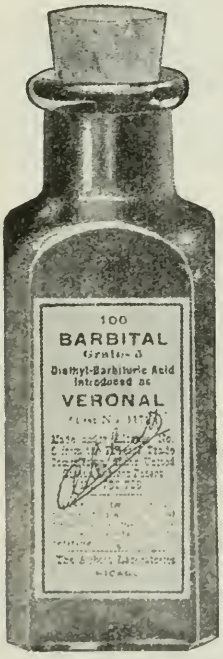
The therapeutic value of Tyree's Antiseptic Powder

As a prophylactic it is of paramount importance, rendering the tissues with which it comes into contact unfit media for the development of pathogenic bacteria. As a daily douche, germ invasion is almost impossible, being cleansing, deodorant, astringent and curative. We cannot quote anything more convincing than the following communication from Dr. W. M. Gray, Microscopist to the Army Medical Museum, Washington, D. C.:

This is to certify that the exact antiseptic strength of "Tyree's Pulv. Antiseptic Comp." is one part of the powder to fifty of water (1:50). Test tubes containing peptonized beef broth were charged with the powder (Tyree's Antiseptic Powder). The solutions were then inoculated with the anthrax bacillus, and with the staphylococci of pus, and the tubes placed in the incubator for 48 hours at a temperature of 390° C. On removing the tubes from the incubator, it was found that in the solutions of one in ten to one in fifty there was no development of bacteria.

J. S. TYREE, Chemist, Inc. **Washington, D. C.**



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Veronal officially renamed and made by us for the home profession, under Federal license. Barbital, Abbott, is Council-passed and second to none. Considered least depressant. Serves effectively in simple and febrile insomnia; to quiet the nervous or hysteric patient; to control the alcohol and drug addict. In 5-grain tablets; also in powder for capsules. TRY IT TODAY.

NET PRICE:

Bottle of 100	$2.63
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Your druggist has it or can procure it for your prescriptions. Direct orders filled promptly at the prices quoted, less 2% if cash is enclosed. We prepay delivery on all orders of $5.00 or more, net.

Samples free on request

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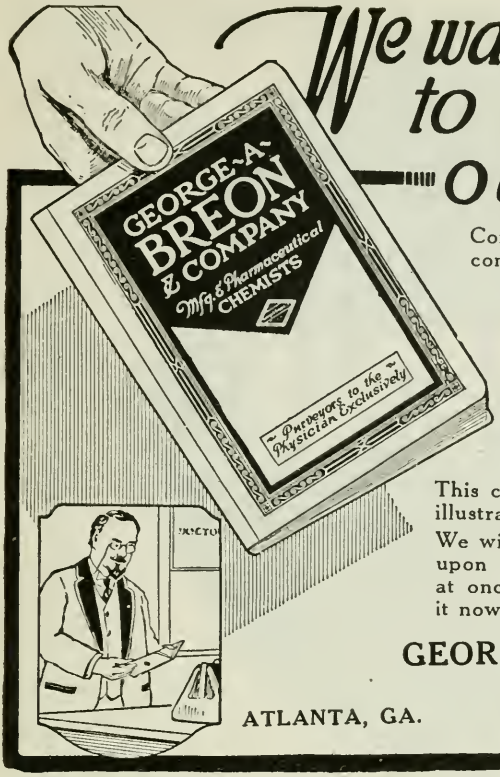

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Weak, Sensitive Feet

almost always show benefits of a pronounced and far-reaching character from the routine use of

O'Sullivan's Heels

The resiliency of these heels of live rubber afford marked relief from the harsh, abrupt impacts that often make every step a real torture. As a result, walking is no longer dreaded, and sufferers from foot weakness are able to spend many more hours on their feet, without developing the soreness and foot tire that otherwise so frequently cause extreme misery and distress. But what is also important, the increased exercise made possible without hurt or discomfort, gradually imparts tone to the foot structures, improves the local circulation and by strengthening the foot muscles, renders them more resistive to fatigue.

Wearing O'Sullivan's Heels has proven a veritable blessing, therefore, to many a person who has known the suffering and physical handicap caused by weak and tender feet.

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IN PERSISTENT PAIN
the demand for relief is oftentimes so urgent that the first thought is of a hypodermic injection of morphine—and yet every doctor holds back on account of its dangerous possibilities.
PAPINE
BATTLE
is an anodyne that may be fully relied upon to give relief in pain with complete avoidance of the evil psychical influence of the hypodermic injection.
The patient gets relief with a minimum of possibility of habit-formation.
WHAT MORE COULD YOU ASK OF AN ANODYNE?
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The Management of an Infant's Diet

Infants' Stools

Regularity in bowel movements contributes much toward normal, healthful progress, and a knowledge of the number and character of the stools during each twenty-four hours is an important part of the general management of early life and assists much in properly adjusting the diet.

Suggestions for the regulation of infants' stools by slight changes in the make-up of the diet and particularly in relation to

Constipated Movements

are given in our book, "Formulas for Infant Feeding," and in a pamphlet devoted especially to this subject. This literature will be sent to physicians who are interested in the matter.

Mellin's Food Company, Boston, Mass.

Surgical Treatment for Empyema

SURGICAL technique in Empyema is varied to cope with each individual case, taking into consideration antecedent conditions and whether the origin is pneumoccocal or streptococcal.

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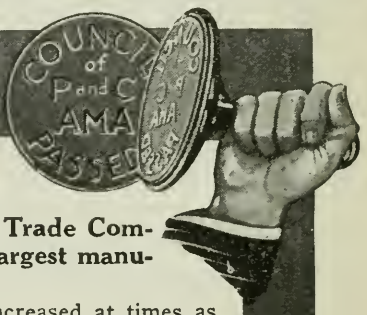

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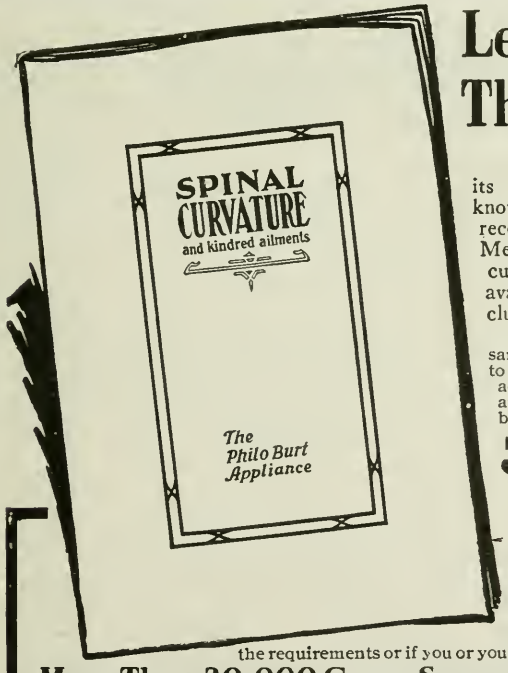

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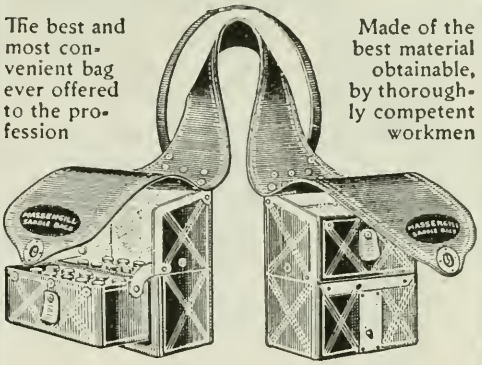

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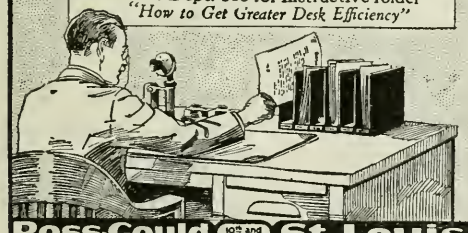

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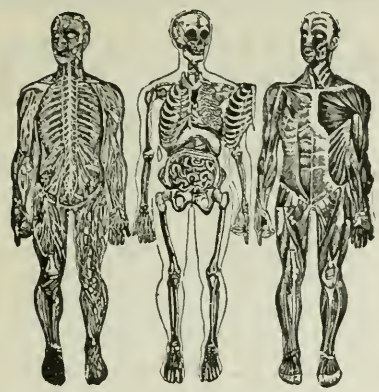

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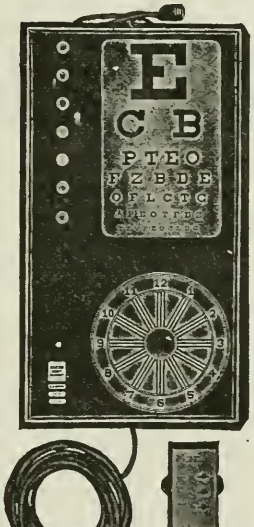

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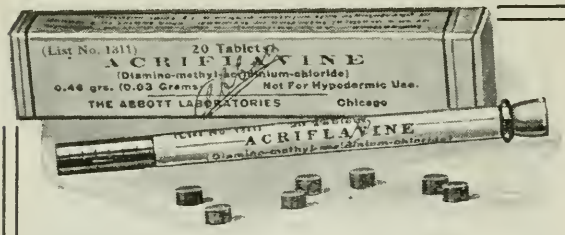

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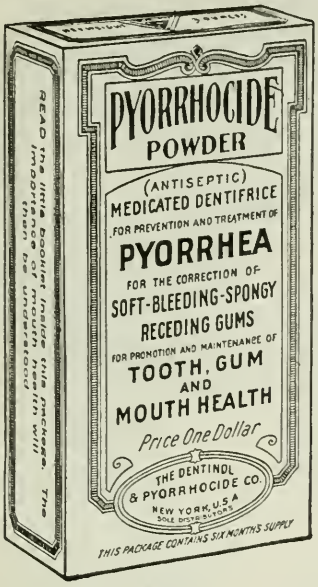

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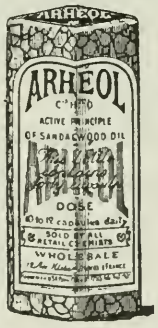

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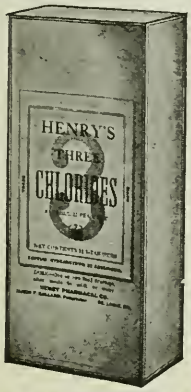

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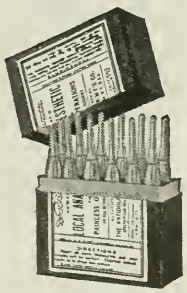

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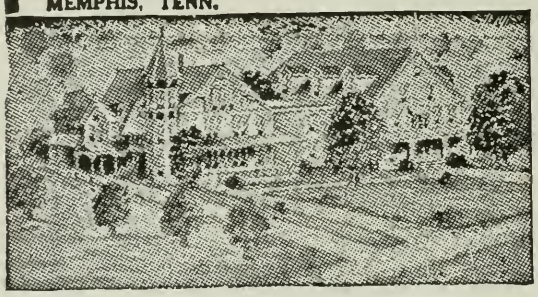

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